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APPENDIX A TO SCOPE OF WORK

SCOPING REPORT

SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Prepared for:

SOUTH DAYTON DUMP AND LANDFILL SITE
PRP GROUP

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1.0 INTRODUCTION

This report presents the site conditions assessment and background information analysis for the South Dayton Dump and landfill site (Site) in Moraine, Ohio. This report is referred to by the United States Environmental Protection Agency (USEPA) as a "Scoping" Report since it sets out the scope of the Remedial Investigation and Feasibility Study (RI/FS) for the Site. Conestoga-Rovers & Associates (CRA) was retained by a group of potentially responsible parties (PRPs) to prepare this report.

CRA and the PRPs met with USEPA and the Ohio Environmental Protection Agency (Ohio EPA) on November 9, 2005 to discuss implementation of the RI/FS. During the meeting, CRA indicated that the use of a presumptive remedy for municipal landfills is appropriate for the Site and the method proposed by the PRPs for addressing the investigation at the Site. USEPA expressed a willingness to use USEPA's Presumptive Remedy Guidance for Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Municipal Landfill Sites. This Scoping Report is based on the use of a presumptive remedy guidance to streamline the RI/FS process.

The intent of the presumptive remedy is to expedite the investigation schedule and streamline the scope of work by eliminating work that is not essential to design and implement the anticipated final remedy. The objectives of this Scoping Report are to:

1. provide a clear and complete evaluation of what is known about the Site;
2. identify data gaps;
3. propose activities to address the data gaps; and
4. prepare for the implementation of the RI.

The Site location is shown on Figure 1.1. A layout of the Site is provided on Figure 1.2.

2.0 REVIEW OF EXISTING CONDITIONS

2.1 INFORMATION REVIEWED

A review of available data is a critical first step in the RI/FS. CRA reviewed available data from federal, state, local, and private sources. A summary of the information reviewed is provided in Table 2.1. Some of the major reports and information reviewed and relied upon to prepare this Scoping Report are listed below.

Federal Sources:

- Draft Settlement Agreement and Administrative Order on Consent (ASAOC);
- Draft Statement of Work for RI/FS;
- General Notice Letter;
- Hazard Ranking System Scoring Documentation Record;
- Aerial Photographic Analysis of South Dayton Dump;
- Special Notice Letter;
- United States Geologic Survey (USGS) Groundwater Resources of the Dayton Area, Ohio;
- Focused Site Inspection Prioritization Report;
- Site Screening Inspection Report; and
- Miscellaneous fact sheets and correspondence.

State Sources:

- Ohio Department of Transportation (DOT) aerial photographs;
- Ohio EPA Site Team Evaluation Prioritization Report;
- Preliminary Assessment Narrative and Form; and
- File review of all available documents at Ohio EPA Southwest District Office.

Local Sources:

- Montgomery County tax map;
- Montgomery County Health District (MCHD) Site inspections; and
- Miscellaneous MCHD correspondence.

Private Sources:

- Payne Firm analytical data, groundwater levels, boring logs, aerial photographs, etc.;
- Haley & Aldrich comments on NPL listing;
- Regional geology/hydrogeology from GM site along Dryden Road;
- Environmental Remediation Report at Valley Asphalt;
- DP&L historic operations, UST closures, and remedial activities;
- Reuse Assessment and Concept Plan for Miami Valley Enterprise Center;
- EDR database review; and
- Miscellaneous information provided from PRPs.

2.2 EXISTING CONDITIONS REPORT

The Payne Firm, Inc. (PFI) on behalf of Coolidge, Wall, Womsley, and Lombard (CWWL), counsel for the property owners, prepared a draft report in 2001 to summarize historical and existing conditions at the Site. CRA has supplemented the PFI report using the following information:

- CRA's review of available data (see Table 2.1);
- Changes in Site conditions since 2001; and
- Changes resulting from the new Site boundary as defined by USEPA.

2.2.1 SITE SETTING

The Site is located at 1976 Dryden Road in Moraine, Ohio. The center of the Site consists of approximately 40 acres of land that is situated in a commercial and industrial setting (historical documents referencing the Site prior to 2002 generally refer to this area – or a smaller area of as little as 23 acres - as the "site"). The Site is bounded to the north by an asphalt plant (part of which constitutes USEPA's definition of the Site) and commercial buildings, on the east by Dryden road and light industrial facilities, on the south by a former gravel pit, part of which constitutes the Site and is now filled with water (quarry pond), and on the west by the Great Miami River. For the purposes of this Scoping Report, the Site has been defined by USEPA in the Special Notice Letters to the PRPs (September 2005) as an area of approximately 80 acres, including the original 40-acre site, part of the asphalt plant to the north, and part of the gravel pit adjacent to the quarry pond to the south.

Landfilling operations were discontinued in 1996 after the death of the landfill's operator, Mr. Alcine Grillot. The owners of the Site where landfilling took place in the past, as part of the operations of the South Dayton Dump and Landfill, include Kathryn A. Boesch, Margaret C. Grillot, Valley Asphalt, Jim City Salvage, Miami Conservancy District and Ronald Barnett. The northern portion of the Site is owned by Valley Asphalt.

A heavily vegetated man-made levee constructed of fill materials separates the Site from the Great Miami River. The grassy area between the Site and the Great Miami River is in the 100-year flood plain and is owned by the Miami Conservancy District (MCD). The topography of the Site is fairly variable, with a depression area in the west-central portion of the Site, several mounded areas of fill, a ravine along the south-central part of the Site, and a low-lying area along the entire southern portion of the Site. An unpaved access road running east-west extends through the center of the Site. An abandoned air curtain destructor (ACD) is situated along the western portion of the Site. The use and operation of the ACD is described below. The Site has a continuous fence around the central 40 acres and separate fencing encompasses most of the additional northern and southern areas recently included within the Site boundary.

2.2.2 SITE HISTORY

Information on the Site history is contained within USEPA, Ohio EPA, and MCHD files for the Site, and on available historical aerial photographs and topographic maps (collectively referred to as file materials). PFI conducted a review of the Ohio EPA and the MCHD files in 1998. CRA completed further file reviews in November 2005. A summary of the Site history, as initially prepared by PFI and revised by CRA, is presented below.

2.2.2.1 HISTORY OF SITE USE

Cyril Grillot and Horace Boesch acquired interests in portions of the approximately 40-acre parcel of land upon which the center of the Site is located starting in 1936. The properties to the north (currently Valley Asphalt) and the vacant land and pond to the south were also owned by Grillot and Boesch. The land to the north was purchased by Horace Boesch in 1945 (a half interest was subsequently transferred to Cyril Grillot in 1951) and sold to Valley Asphalt in 1993. It is unclear when the southern portion of the Site was purchased by Grillot and/or Boesch, but a county tax map indicates the

southern-most portion of the Site was transferred from Grillot/Boesch to the Miami Conservancy District circa 1970. The Site was used for agricultural purposes in the 1930s, and then as a sand and gravel quarry.

Cyril Grillot's brother, Alcine Grillot, began a landfill operation at the Site in the early 1940s. Detailed information regarding the landfilling operations between the 1940s and the late 1960s was not contained within the file materials, and there are no license or landfill inspection records for that time period. The primary operating process during the initial 20 to 25 years of operation was the open burning of vegetation and wood wastes, and direct landfilling was a secondary process. According to a written statement from Alcine Grillot, all material initially brought in was burned (except some metal for salvage) and the ash backfilled on Site. From the late 1960s to the early 1990s, approximately eight acres of land along the northern portion of the Site was leased to an auto salvage yard (see Figure 1.2).

The landfill was first licensed as a solid waste disposal facility in 1969 by the MCHD. In 1974, the Ohio EPA took over the responsibility from MCHD for the annual license. The last license that was granted by the Ohio EPA was in 1986. Alcine Grillot operated the landfill from the 1940s to 1996.

The sequence of modification of the Site's operating license is summarized below.

License Period	*Wastes Permitted*
1969 - 1974	commercial, industrial, and household wastes
1975	commercial, industrial, household, and demolition wastes
1976 - 1986	dry commercial, industrial, and salvageable wastes; wood for burning
1977 Modification	garbage/putrescible waste or other solid waste requiring daily cover must be rejected; fly or bottom ash may be accepted if covered daily or kept moist
1987 - 1996	construction and demolition wastes only

Detailed information regarding the types and quantities of wastes, and the dates, frequency and location of dumping or burial are not available between 1950 and 1969 because such records were not kept during that period. Drummed wastes were only occasionally accepted according to the information in the file. Apparently, drums were emptied of their contents and either buried or sold to drum recyclers.

In 1970, Alcine Grillot formed Moraine Recycling, Inc. and developed and constructed an ACD along the west side of the Site. The ACD was an open-air furnace designed to

burn wood and vegetation wastes. The ACD was not an incinerator but rather a "controlled open burning device", and was operated under a special open burning permit. The MCHD assisted Alcine Grillot in the permit process and acknowledged the ACD as a reasonable alternative to continued landfilling. A February 24, 1971 letter from the MCHD to the Ohio EPA indicated that the Moraine Recycling ACD had been shut down because the "side walls have distorted to the extent that the proper control of the air curtain cannot be accomplished." There is no indication in the file materials whether the ACD was ever repaired or operated after February 1971.

The MCHD requested in an April 14, 1987 letter that Alcine Grillot provide a "...written statement from you confirming that you are not operating the Site as a solid waste disposal facility and thus not accepting solid waste." The MCHD also indicated that the Site "...may continue to accept hard fill and demolition waste for disposal at this site. " As a result, from 1987 until it closed in early 1996, the Site accepted construction and demolition debris only. According to an interview by a USEPA contractor with Alcine Grillot, the landfill's only customer during this timeframe was the GM Delco-Moraine Plant, which is located about 0.5 miles northeast of the Site. Mr. Grillot stated that the GM wastes disposed of at the Site consisted of wooden pallets, concrete, and scrap wood. Alcine Grillot stated that GM had a key to the landfill gate and disposed of materials on an as-needed basis.

2.2.2.2 INSPECTIONS AND RECORDS

There were Daily Disposal Logs in the files reviewed for April through November 1969, February through June 1977, and April through December 1981. No other logs were available in the files outside these brief periods. A summary of the average volumes of material accepted by the landfill during the above-noted time periods is presented below:

Date	*Average Volume Accepted (cubic yards/month)*
April 1969 - July 1969	volumes not listed in logs
August 1969 - November 1969	1800
February 1972 - June 1977	100
April 1981 - December 1981	6500

The MCHD or the Ohio EPA conducted approximately 53 inspections at the landfill from 1969 to 1986. There were no records of inspections for 1970 through 1974, and after

1986. The majority of the forms indicated that the landfill "operations were satisfactory". A few of the forms contained one or more of the following notations: "compacting not completely satisfactory", or "clean-up scattered paper" or, "maintain access road", or "do not accept any drums with waste materials". On the March 1969 landfill inspection form it was noted that "garbage, paint, thinner, paper, furniture being dumped and not covered."

The MCHD and the Ohio EPA observed containers labeled "hazardous" during a May 1978 inspection (May 24, 1978 MCHD letter). The MCHD directed that Alcine Grillot correct noticeable soil compaction and cover problems and to discontinue accepting drums or plastic containers labeled "hazardous" unless the containers were washed and the materials removed prior to arrival at the landfill. Alcine Grillot was also instructed to "...remove all hazardous containers from the premises for washing and/or other disposal..." and that he was not allowed to "...bury these containers on your site prior to washing. "

On January 11, 1980, the MCHD confirmed that the operator had removed containers from the Site and would verify that containers were cleaned out before they were buried at the Site.

The Ohio EPA's May 1, 1979 RCRA Land Disposal Inventory indicates that metal and empty drums were at the Site. The inventory indicated that Alcine Grillot stated that "...as much of the scrap metal and empty drums as possible were salvaged from the site." Other information documented in the inventory:

- Method of disposal: covered surface dumping; covered trench or pit;
- Visible or Potential Problems: leachate contamination of groundwater; less than five feet separation between waste and seasonal high water table; and
- Description of Wastes Received: demolition debris, wooden pallets, fly ash, foundry sand, scrap metal, empty drums. Condition: loose solid. Quantities: unknown; total quantities for all waste is approximately 200 cubic yards per day.

The MCHD wrote to the City of Moraine on January 31, 1979 to indicate that the MCHD made monthly visits to the Site. MCHD stated that the Site was prohibited from accepting garbage or other putrescible material. The MCHD also stated that the Site was permitted to accept only dry inert industrial, commercial, or household material since it had little cover material available.

On August 2, 1989, the Ohio EPA sent a letter to Alcine Grillot informing him of his obligation to comply with Rule 3745-27-12, which stated that any active or closed sanitary facility must submit an explosive gas monitoring plan. In a letter dated August 21, 1989, Alcine Grillot responded that his operation was not subject to that rule because the Site had not accepted any garbage or other putrescible material since it was prohibited to do so by the MCHD and that prior to that any refuse, garbage, or wood that was accepted was burned and the ash backfilled. He noted that the Site accepted broken concrete, brick, dirt, ash, gravel, block, etc. that did not contain wood. Ohio EPA wrote to Alcine Grillot on April 11, 1990 and agreed that the Site was exempt from the rule. Ohio EPA stated that the Site did not generate a large quantity of landfill gas based on the types of waste disposed.

2.2.2.3 AERIAL PHOTOGRAPHS

CRA completed an aerial photographic review of the Site and a confirmation of a similar review PFI had previously prepared. PFI utilized sixteen aerial photographs from Montgomery County, Miami Valley Regional Planning Commissions, and Woolpert Geographic Information Services. The photographs reviewed date from 1938 to 1996. CRA's review was focused on a confirmation of the limit of ground disturbances and apparent landfilling to ascertain the potential limits of the landfill for scoping the RI. CRA's update and overview of PFI's review is presented below. Appendix A presents the aerial photographs from 1956 to 1996, along with CRA's site interpretation of apparent filling or ground scarring on or near the Site.

PFI observed that the 1938 photograph indicated that the land use associated with the Site and surrounding area was primarily agricultural. No commercial or industrial sites were located on or around the Site. Initial commercial or industrial development occurred north and east of the Site in the 1940s, and to the southeast in the 1950s. CRA's review confirmed that the surrounding land use remains constant through 1996, except the presence of an auto salvage yard adjacent to the Site and east of the quarry pond is apparent in the 1994 and 1996 aerial photographs.

Within the Site boundaries as described by USEPA, several debris piles were observed in the 1957 photograph along the northern portion of the Site. Sand and gravel mining operations are apparent in the 1956, 1957, and 1968 aerial photographs at the south end of the Site. An auto salvage yard is present north of the Site from the 1960s to the mid-1990s. It appears that the gravel extraction operations were discontinued in the 1968 photograph due to the large body of water within the area that was mined. Also, debris piles were located along the water's edge, suggesting that backfilling of the

excavation was taking place. The debris piles consisted of varied white, gray, and black colored piles. The gray and black piles appeared to be fine-grained material resembling foundry sand or fly ash. The white debris piles had a coarse texture and resembled concrete rubble.

The 1968 to 1986 photographs also show a ground depression, possibly an impoundment, north of the auto salvage yard on the Valley Asphalt property. This depression was partly filled in the 1987 photograph and fully filled and the area used for an aggregate stockpile in the 1990 photograph.

The 1973, 1974, 1975, and 1978 photographs show the landfill's operational progress. These photographs show that the large body of water has been filled in. Several areas of filling were observed in the photographs. The filling of the former gravel mining area excavation appeared to be taking place in the western and central portions of the Site. The debris piles in the photographs appear similar to construction debris. A potential staging/storage area was first noted in the 1973 photograph in the northern portion of the Site. Containers were observed across the access road north of the staging area in the 1973 and 1974 photographs. All other photographs from 1975 and later indicate that pallet-sized objects and other construction debris were present in the staging/storage area.

Twelve vessels that appear to be either underground and/or aboveground storage tanks were present in the 1978 photograph in the southwestern portion of the center of the Site. The vessels do not appear to be in use. In addition, what appears to be concrete piping is staged in a row in the western portion of the Site.

Three potential storage tanks were present in the 1986 photograph in the southwestern portion of the center of the Site. Fifteen vessels were also located near the Site's entrance in the 1986 photograph. These vessels were also present in subsequent photographs (1990, 1991, and 1993). The vessels were not present in the 1994 or 1996 photographs. There are no activities or piping in the vicinity of the vessels so they appear not to be in use. All of the observed vessels appear to be staged and not in use.

In the 1986 photograph, filling activities appear to be primarily concentrated in the eastern portion of the Site. Less intensive filling activities are apparent in the western and central portions of the Site. The staging/storage area present in earlier aerial photographs remains active in the north-central portion of the Site. The staged materials appear to be pallet-shaped objects and other construction debris. The filling operation in the eastern and southern portions of the Site expanded into the central portion of the Site

between 1986 and 1996. The fill material appears to be construction debris similar to that previously viewed in the earlier photographs.

Ponds that formed in the central portion of the Site as observed in the 1991 photograph are subsequently filled in, drained, or evaporated as the eastern fill activities expanded to the central portion of the Site. The westernmost body of water is reduced in size in the 1994 photograph and then is expanded in the 1996 photograph. These changes are likely due to variability in precipitation.

2.2.3 ENVIRONMENTAL SETTING

2.2.3.1 SITE INSPECTION

CRA completed a Site reconnaissance on November 17 and 18, 2005. CRA inspected the Site and areas directly adjacent to the Site, with the exception of the Valley Asphalt property, which is separately fenced. The only business that was observed to be operating within the portion of the Site CRA inspected was B&B Pallet, located at the entrance of the Site at the intersection of Dryden Road and East River Road. Businesses operating directly adjacent to the Site include Valley Asphalt to the north, several small shops to the east, and various businesses to the southeast. There are also residences in a trailer park to the southeast across Dryden Road.

The entrance to the Site was crowded at the time of CRA's inspection with pallets and scrap wood used in B&B Pallet's operation. A significant amount of surficial debris was also observed near the Site entrance, including numerous tanks, drums, tires, scrap metal, and other trash. Several of the drums were lying on their side and appeared to be empty. A pile of debris, consisting of scrap wood, shingles, refuse, and other garbage (potentially from B&B Pallet's operation) was located along the access road near monitoring well MW-101A.

An access road through the center of the Site (below the power lines) was accessible by vehicle, but other areas were too overgrown with vegetation for vehicular access. The central and northern portions of the Site were fairly heavily vegetated with small to medium-sized trees and significant brush. The topography of the area that was formerly leased by Jim City Salvage was observed to be fairly level (northern portion of the Site). The topography of the central portion of the Site is uneven, with significant mounding at some areas, depressions at others, and slopes indicative of waste filling boundaries. A significant amount of surficial hard fill was present, consisting primarily of concrete

debris that was dumped in discrete piles. CRA also observed a large amount of slag along the ground surface throughout the north and central parts of the Site.

A pond within the west-central part of the Site (referred to as "large pond") was located within a depression that was approximately a few hundred feet square. An embankment of approximately 10 to 15 feet in height exists along the western, northern, and eastern sides of the depression, with fill material clearly evident on the banks due to limited soil cover.

Several drum remnants were present along the surface of, and partially buried within, the north embankment. Some municipal waste was also observed directly adjacent to the ACD to the northwest of the depression. The topography in this area suggests that during the periods of filling waste haulers drove along the perimeter haul roads around the west-central portion of the Site and dumped loads from the edge of the road into the depression. Piles of concrete debris were scattered throughout to the south of the depression.

The topography drops sharply from the access road along the power lines toward the southern part of the Site. The southern part of the Site is generally flat with little or no vegetation, except along the western and southern boundary of the quarry pond. The far northeastern portion of the southern area of the Site is elevated above the remainder of the southern area by approximately 15 to 20 feet. Concrete debris and other hard fill is visible along the steep downslope in this area. The remainder of the northeastern portion of the southern Site area is generally flat, although elevated slightly above the surface of the quarry pond. Fill, including concrete, asphalt, slag, and gravel is visible along the slope to the quarry pond. Four drums that appeared to be empty were observed partially submerged in the water in the southeastern part of the quarry pond.

The man-made levee along the western boundary of the Site is heavily vegetated with small to medium-sized trees. Slag and metal debris was evident across the eastern surface of the levee slope and discrete piles of trash appeared to have been dumped at a few locations. The paved bike path and the grassy surface by the monitoring wells, located in the floodplain, were dry at the time of the Site inspection.

In general, the Site has an undulating surface that would require grading to ensure positive drainage and minimize erosion. There are steep slopes along embankment areas that would have to be managed to ensure their long-term stability.

In addition, due to the relative ease of access to the Site, it appears that recent dumping has occurred to a small degree. This dumping has been limited to construction and demolition debris with minor amounts of refuse.

2.2.3.2 LOCAL LAND USE

A summary of the local land use in the vicinity of the Site was obtained from CRA's review of the 1966 (photograph-revised 1991) Dayton South, Ohio 7.5 minute USGS topographic quadrangle map. Local land uses have been verified in part through visits to the Site and surrounding areas. Local land use within one square mile of the Site consists of a mixture of residential, commercial, industrial, recreational, and transportation uses.

Residential properties exist more than 1,500 feet north of the Site beyond the opposite bank of the Great Miami River. A small trailer park is located within 0.25 miles east-southeast of the Site across Dryden Road. Seven residences bound the Site to the southeast along East River Road. Commercial and industrial properties bound the Site to the east and south. Additional commercial and industrial properties are located on the opposite bank of the Great Miami River to the northeast, north, northwest, west, and southwest. A large sewage disposal facility is located along the opposite bank of the Great Miami River southwest of the Site. Small and large cemeteries are located beyond the opposite bank of the Great Miami River to the northwest and beyond I-75 to the east-southeast. Quarrying has occurred beyond I-75 to the southeast.

Recreational land uses occur along the banks of the Great Miami River, which meanders northeast, north, northwest, west, and southwest of the Site. A hiking and biking trail is present on the north and west Site boundaries. A golf course is located west of the Site beyond the opposite bank of the Great Miami River. Interstate highway I-75 is present northeast, east, and south of the Site. Railroads are east and west of the Site, and various roadways are present surrounding the Site.

2.2.3.3 SURFACE FEATURES

A summary of the surface features at and in the vicinity of the Site was obtained from review of the 1966 (photograph-revised 1991) Dayton South, Ohio 7.5 minute USGS topographic quadrangle map and through visits to the Site and surrounding areas.

The following surface features are noted at and in the vicinity of the Site:

- the surface elevation is approximately 730 feet above mean sea level (AMSL), with a gentle slope downward from northeast to southwest;
- during CRA's November 2005 Site inspection, one pond was located within the west-central portion of the Site and the quarry pond was located at the southwest part of the Site. Locations of permanent and temporary surface water bodies are shown on Figure 1.2;
- along the west side of the Site, a man-made levee separates the Site from a hiking and biking trail located on the Miami Conservancy District property;
- commercial, industrial, and residential structures bound the eastern part of the Site along Dryden Road and southeast along River Road;
- the Great Miami River flows in or overall southerly direction along the western side of the Site; and
- no other drainage features are shown on the topographic map for the Site and its vicinity.

2.2.3.4 SOIL

CRA developed a summary of the soil type at the Site from the Soil Survey of Montgomery County Ohio (US Department of Agriculture — Soil Conservation Service, 1976). Soil designations at the Site were identified as Fox-Urban land complex, gently sloping (FuB), Made land (Mb), and Gravel pits (Gp). Characteristics of each are summarized as follows.

Fox-Urban Land Complex, Gently Sloping

- Nearly level, gently sloping, and occupying stream terraces.
- Disturbed or buried by filling or earth moving operations.
- Undisturbed soil is well drained.
- Undisturbed soil is mostly underlain by sand and gravel at depths of 24 to 42 inches.
- Permeability is rapid in the underlying sand and gravel.

Made Land

- The original soil profile has been altered or buried.
- Contains a mixture of soil, underlying material, and foreign material.

Gravel Pits

- Consists of open excavations, from which sand and gravel have been removed.
- Soil layers have been stripped away.

2.2.3.5 SURFACE WATER HYDROLOGY

Surface water bodies at and in the vicinity of the Site that may have an effect on conditions at the Site include two intermittent ponds (large pond and small pond) on the Site, the Great Miami River to the west and north of the Site, and the former water-filled sand and gravel pit (quarry pond) located along the south end of the Site.

The large pond is located approximately 375 feet north of the quarry pond. (See Figure 1.2.) The small historic pond was formerly located approximately 350 feet northeast of the quarry pond and approximately 275 feet southeast of the large pond. These two ponds were apparently connected and covered a larger area as described by Ohio EPA (1996) for visits during August 1995 and May 1996, each following a period of extended rain. At various times, the large pond contained water while the small pond was dry (e.g., June, August, and September 1998, June 1999, and at the time of CRA's inspection in November 2005). One or both ponds have been observed to be dry at various times. The two ponds appear to be recharged by the shallow groundwater beneath the Site. Water is lost from the ponds primarily through evapotranspiration and secondarily through infiltration to the underlying aquifer.

The quarry pond has a surface elevation of approximately 712 feet AMSL, although this varies with seasonal precipitation. The quarry pond is likely a source of recharge and infiltration to shallow groundwater.

The surface elevation of the Great Miami River is highly variable based on seasonal precipitation but it is generally approximately 715 feet AMSL. The Great Miami River is a primary source of recharge and infiltration to the shallow groundwater beneath the Site.

2.2.3.6 REGIONAL GEOLOGY AND HYDROGEOLOGY

Regional and local geology within the central and southern parts of Montgomery County and surrounding areas is dominated by the incision of the widespread glacially influenced Miami Buried Valley (MBV) and its associated Aquifer (MBVA) within low permeability Ordovician bedrock.

2.2.3.6.1 GEOLOGY

Montgomery County is located within the Till Plains section of the Central Lowlands physiographic province. Many of the topographic elevation differences in the area are attributed to glacially derived features (e.g., moraines), deposits (e.g., till and outwash), or less-affected upland areas.

The underlying bedrock in the area is comprised of Ordovician rocks consisting of shale and thin interbedded limestone layers with a relatively low permeability compared to the MBVA. The bedrock outcrops at the surface at some locations within the county. There are many upland areas where the depth to bedrock is less than 25 feet below ground surface (bgs) but the depth to bedrock at the margins of the MBV exceeds 200 feet bgs. The bedrock is not considered an important source of groundwater in the area.

The MBV was incised within the Ordovician bedrock and was filled with glacially derived materials in deposits of up to 250 feet of poorly sorted clay, silt, sand, and gravel. Materials forming the MBV were deposited as highly permeable glacial outwash, less permeable lacustrine (pond sediment) sequences, and a relatively impermeable glacial till.

The main channel of the MBV traverses the eastern half of Montgomery County from north to south and is present beneath the Site. The Great Miami River flows above this main channel. Branch channels of the MBV connect to the main channel at numerous places throughout Montgomery County, both north and south from the Site.

Glacial till separates upper and lower sand and gravel outwash sequences in many parts of the MBV. The thickness, depth, and continuous nature of this glacial till vary from area to area and are unknown at some locations.

2.2.3.6.2 HYDROGEOLOGY

An upper aquifer is present in the MBV under water table conditions. The upper aquifer is separated from the lower aquifer by clay-rich till of varying thickness and continuity.

The lower aquifer is present under semi-confined conditions due to the variable nature of the till. The lower aquifer incorporates additional till sequences of varying thickness.

Recharge to the upper aquifer occurs primarily through the streambed of rivers, but also from precipitation through land surface infiltration and constructed infiltration galleries. Recharge to the lower aquifer occurs primarily from the upper aquifer and varies with the thickness or absence of the clay-rich till aquitard.

Water supply wells are screened in the upper or lower aquifers. Large users typically screen wells in the lower aquifer. Wells may yield more than 3,000 gallons per minute (gpm) in some parts of the MBVA.

The MBV is approximately 2.5 to 3.5 miles wide in the vicinity of the Site. The Site is located just west of the center line of the deepest part of the MBVA. The Site is located within an area consisting of sand and gravel deposited as outwash.

A till layer separates the upper and lower aquifers and is typically present at a depth of 35 to 50 feet below grade.

The following yields have been recorded for individual wells completed in the MBV within two miles of the Site (based on information from PFI's 2001 report):

1.	Dayton Power & Light	3,000 gpm
2.	GM/Delco Moraine	2,565 gpm
3.	National Cash Register	1,900 gpm
4.	GM/Frigidaire	1,830 gpm
5.	Aetna Paper	1,620 gpm
6.	Dayton Steel Foundry	1,000 gpm
7.	Sunshine Biscuits	896 gpm
8.	Monsanto Chemical	500 gpm

2.2.3.6.3 AREA WATER SUPPLIES

Water supplies within approximately five miles of the Site are provided by both public and private sources. Information on area water supplies is based upon information from PFI's 2001 report and CRA's review of USEPA and Ohio EPA files.

According to Ohio EPA (1996), the Site is located within a secondary designated wellhead protection area. Public water supplies are obtained from groundwater production wells of municipal well fields. Table 2.2 presents a summary of the water production and monitoring well networks in the vicinity of the Site.

The historic impact of the users listed in Table 2.2 on the groundwater flow direction is uncertain. However, the USGS Report (1966) on the Ground-Water Resources of the Dayton Area, Ohio, identifies two centers of pumping, one to the northeast (GM/Delco, National Cash Register, and Dayton, Power & Light et al. sites) and one to the south (GM/Frigidaire and Lamme Road well field sites) of the Site which combined to create a stagnation zone in the lower aquifer in the vicinity of the Site during measurements conducted in April 1959 and October 1960. The Lamme Road well field was abandoned subsequent to the issuance of the 1966 USGS Report.

2.2.4 PREVIOUS SITE INVESTIGATIONS

The following investigations have been conducted at the Site since 1985:

- Ohio EPA, 1985, Preliminary Assessment for the South Dayton Dump and Landfill.
- Ecology and Environment, Inc. (EEI), 1991, Screening Site Inspection Report for South Dayton Dump, Moraine, Ohio. Prepared by EEI on behalf of USEPA.
- PRC Environmental Management, Inc. (PRC), 1995, Focused Site Inspection Prioritization Site Evaluation Report for the South Dayton Dump
- PSARA Technologies, Inc. (PSARA), 1996, Installation of Groundwater Monitoring Wells at the South Dayton Dump, Moraine, Ohio. Prepared by PSARA on behalf of Ohio EPA.
- Ohio EPA, 1996, Site Team Evaluation Prioritization Report, South Dayton Dump and Landfill.

- PFI, 1998-2005. Groundwater monitoring well installations, groundwater sampling, analyses, and water level measurements.
- TCA Environmental, 2000, Environmental Remediation Report at Valley Asphalt. Prepared by Valley Asphalt.

Figure 2.1 shows the locations of the groundwater monitoring wells installed in and around the Site. Figure 2.2 shows the location of all historical soil samples and boreholes collected as part of the investigations listed above.

2.2.4.1 1985 OHIO EPA PRELIMINARY ASSESSMENT (PA)

The 1985 Ohio EPA investigation that consisted of an aerial inspection of the Site and interviews made the following conclusions and recommendations:

- The presence/disposal of hazardous chemicals at the Site posed a potential threat to groundwater beneath the Site, and to the Great Miami River.
- Groundwater flow is to the west toward the Great Miami River. (Note: this determination was not made on the basis of monitoring well information — no wells were present at the time. Subsequent information collected during water level monitoring at new wells conflicts with this interpretation.)
- Ohio EPA rated the Site as a high priority for state and federal action, and recommended the installation of groundwater monitoring wells.

2.2.4.2 1991 EEI SCREENING SITE INSPECTION (SSI)

The 1991 Ecology & Environment, Inc. (EEI) investigation was completed, on behalf of USEPA, the SSI consisted of the collection and analysis of surface and subsurface soil samples from the Site.

EEI collected ten surface and subsurface soil samples and analyzed the samples for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals. EEI concluded that each of these types of analytes was detected at concentrations above background. Analytical results are summarized in Table 2.3. The EEI report identified that the presence of PAHs in some of the samples could be attributed to the Valley Asphalt plant.

2.2.4.3 1995 PRC FOCUSED SITE INSPECTION PRIORITIZATION (FSIP)

The 1995 FSIP consisted of a Site inspection, a review of available information and evaluation of the potential threat to human health and the environment posed by the Site, and the development of recommendations to assess the Site further. The FSIP recommended that groundwater monitoring wells be installed and sampled and surface water samples be collected and analyzed.

2.2.4.4 1996 PSARA MONITORING WELL INSTALLATION

The 1996 PSARA was completed on behalf of Ohio EPA. PSARA installed seven soil borings and temporary monitoring wells along the south-central, southwestern, western, and northwestern portions of the Site. PSARA collected soil samples for lithologic description and field screening. Methane was apparently detected in the headspace at five boring locations. PSARA reported that a flame ionization detector (FID) reading of over 1,000 ppm was measured at one location. Field data are summarized in Table 2.4.

The investigation included the collection of groundwater samples from the soil borings. The samples were analyzed for VOCs, and very low concentrations of some VOCs were detected. The concentrations were below federal maximum contaminant levels (MCL). The groundwater analytical results are summarized in Table 2.5.

PSARA also installed three permanent groundwater monitoring wells in locations that were based on the presumed historical groundwater flow direction and accessibility. A monitoring well at the Dayton, Power and Light facility to the east of the Site was also utilized and considered a background location. The stratigraphic and instrumentation logs for these monitoring wells are presented in Appendix B.

PSARA collected one round of groundwater samples from those wells. The groundwater analytical data are summarized in Table 2.5. These data were consistent with the results of analyses of the groundwater samples from the temporary monitoring wells.

2.2.4.5 1996 OHIO EPA SITE TEAM EVALUATION PRIORITIZATION (STEP)

The 1996 Ohio EPA STEP investigation was completed to determine if previous disposal at the Site had impacted the environment. The STEP included the following activities.

- Review of the Site background, setting, and hydrogeology.
- Collection of twelve soil samples (including one duplicate and one background), six sediment samples (including one duplicate), and five groundwater samples (including one duplicate and one background). No surface water or air samples were collected. Analytical results for the groundwater, soil and sediment are summarized in Tables 2.5, 2.6, and 2.7, respectively.

Ohio EPA used a criterion of three times the background concentration to determine if constituents detected in soil, sediment, and groundwater were of concern. Ohio EPA concluded the following constituents were present in the samples collected at concentrations that were elevated above background. Background was characterized by the collection and analysis of one soil sample (SO7, southwest end of quarry pond) and one groundwater sample (MW104, east of Site).

Parameter	*Soil*	*Sediment*	*Groundwater*
Chlorinated VOCs	x		x
Acetone			x
Toluene			x
PAHs	x		
Phthalates	x		
Pesticides		x	x
Metals	x	x	x (potassium)
PCBs	x	x	

The STEP report concluded that the human health soil exposure pathway was determined to be potentially complete at the Site due to a lack of access control.

The STEP report also concluded that the groundwater exposure pathway was potentially complete. The uncertainty associated with this pathway was due to the undefined groundwater flow direction and the presence of other sources of groundwater contamination in the area.

With respect to surface water and sediments, the exposure pathway was determined to be potentially complete due to the detections in sediment samples.

The STEP report concluded that the presence of soil and debris piles, along with the 1996 PSARA data, resulted in a potentially complete air exposure pathway.

2.2.4.6 1996 TO 2005 PFI SITE INVESTIGATIONS

Based on a review of the available Site history, the Site setting, and previous investigations conducted by others, PFI completed a series of investigations to aid in defining the environmental issues at the Site.

PFI supervised the drilling of thirteen soil borings at the Site in 1998 and 1999. PFI completed ten of the borings as 2-inch PVC groundwater monitoring wells (MW201-204, MW206-210, and MW212) on Figure 2.1, and one of the borings was completed as a piezometer (P211 on Figure 2.1). The two remaining soil borings (GT-205 and GT-212) were not completed as monitoring wells due to the presence of heaving sands in the well completion interval.

These wells supplemented the monitoring wells MW101, MW101A, MW102, and MW103 that were installed in 1996 for Ohio EPA by PSARA.

PFI installed surface water elevation gauges in May 1998 at the quarry pond, large pond, and small pond. PFI used these gauges to monitor surface water elevations in connection with the groundwater elevation measurements that were collected approximately quarterly from June 1998 through August 2005. The water level data are presented in Table 2.8.

PFI collected 10 rounds of groundwater samples and analyzed the samples for the parameters indicated below.

Monitoring Round Date	*Parameters Analyzed*
• January 1998	VOCs, RCRA Metals
• May 1998	VOCs, RCRA Metals, Natural Attenuation Indicators[1]

(1) Chloride; Nitrate; Ammonia as Nitrogen; Sulfate; Total Alkalinity; Total Organic Carbon; Methane; Ethane; Ethene; and Dissolved Iron.

• February 1999	VOCs, RCRA Metals, Natural Attenuation Indicators
• November 1999	VOCs
• May 2000	VOCs
• June 2001	VOCs
• June 2002	VOCs
• July 2004	VOCs
• October 2004	VOCs
• August 2005	VOCs

The groundwater analytical data are presented in Table 2.4 along with Ohio EPA and PSARA data in Table 2.5.

PFI sampled surface water and sediments at the quarry pond during April 1999 and May 2000. PFI collected three surface water samples during each sampling event using a Bacon Bomb sampler, and three sediment samples during each event using an Ekman Dredge. PFI analyzed the samples for VOCs and also analyzed the April 1999 sediment samples for total organic carbon (TOC). The surface water analytical data are presented in Table 2.9. The sediment analytical data are presented in Table 2.10.

2.2.4.7 SUMMARY OF RESULTS OF PFI INVESTIGATION

Geology

Based upon PFI's classification of the soil samples collected during soil boring installations, the soil at the Site typically consists of a sequence of fill, underlain by fine-grained clay, followed by the upper aquifer sand and gravel, followed by a clay till.

The fill layer is variable in thickness from 0 feet on the Miami Conservancy property to greater than 30 feet bgs (at MW-212).

The fine-grained clay layer varies in thickness from 0 feet along Dryden Road to 8 feet along the Great Miami River at the Miami Conservancy District property.

The sand and gravel zone is discontinuous across the Site, ranging from more than 22 feet thick at MW-201 to non-existent at MW-212. The saturated thickness of the upper aquifer is not well defined but is greater than 30 feet at MW-212.

The clay till layer that underlies the upper aquifer sand and gravel was contacted in one borehole but was not penetrated during the prior Site investigations. The deepest borehole completed at the Site is 58 feet bgs (MW-212).

Hydrogeology

Based on the information collected by PFI, shallow groundwater is recharged by surface water in the vicinity of the Site. The Great Miami River and the quarry pond recharge shallow groundwater and impact groundwater flow patterns.

The Great Miami River flows from northeast to southwest of the Site within a few hundred feet of the Site's western boundary. The quarry pond is present along the western half of the southern boundary of the Site.

The surface water bodies recharge to the upper aquifer and create a boundary condition along the north, west, and southwest portions of the Site. Infiltrating surface water will impact groundwater quality.

The magnitude of the infiltration and relative elevations of the surface water bodies creates temporal variations in the shallow groundwater flow beneath the western and southwestern portion of the Site, including a stagnation zone that exists between the quarry pond and the Great Miami River.

Groundwater beneath the central part of the Site flows east and south to the Site boundary line. In addition, groundwater flows south beneath Dryden Road and its frontage properties along the eastern boundary of the Site.

The two wells that have produced samples with the highest concentrations of VOCs are MW-101A (1,2-dichloroethene or 1,2-DCE; and vinyl chloride or VC) and MW-210 (trichloroethene or TCE). The groundwater flow regimes in the vicinity of these two wells are substantially different from one another, as is discussed below.

MW-101A - groundwater flows from off-Site (southwest) and on-Site (northwest) through this area, trending to an overall southerly flow away from this area.

MW-210 - groundwater flows from the north along Dryden Road to the south.

Groundwater quality at the Site has been impacted by chlorinated solvents discharged due to from Site activities, activities at neighboring properties, and/or contamination in

recharging surface water. In particular, TCE has been detected consistently in groundwater samples from wells completed on the eastern (MW-202 and MW-210) and western (MW-201*) boundaries of the Site. TCE has also been detected on occasion in groundwater samples from MW-102 and MW-208, also located at the western and eastern margins of the Site, respectively. TCE has notably not been detected, in groundwater samples collected from wells installed at the southern and southwestern Site boundary.

Breakdown products of the degradation of TCE (1,2-DCE and VC) have been consistently detected in groundwater samples collected from MW-101A (south-central portion of the Site). 1,2-DCE has also been consistently detected in groundwater samples collected from MW-210 at the southeast corner and once in groundwater samples from MW-202 on the eastern margin of the Site. 1,2-DCE and VC have been detected on occasion in groundwater samples from MW-203 and MW-208 at the southern and eastern margins of the Site, respectively.

1,1,1-Trichloroethane and its breakdown products have also been detected in groundwater samples collected from monitoring wells installed at the Site.

The presence of both parent and daughter compounds is a strong line of evidence that natural attenuation is occurring at the Site.

The data for natural attenuation parameters provide a second line of evidence that natural attenuation is occurring. Significant observations related to the parameters are:

1. MW-201 samples - reducing conditions evident and indicator byproducts present
2. MW-204 samples - reducing conditions evident and indicator byproducts present
3. MW-210 samples - reducing conditions evident, different quality than recharge water, elevated sulfate and chloride

These natural attenuation data support a conclusion that natural degradation of the chlorinated VOCs is occurring. This phenomenon, which is common in landfills, should be evaluated further in the RI.

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* Although groundwater samples collected from MW-103 in the late 1990s contained low concentrations of TCE, TCE has not been detected in groundwater samples collected from this well from 2000 on.

PFI also collected surface water and sediment samples from the quarry pond. These data are presented in Table 2.9 and 2.10, respectively. PFI noted two of the three sediment samples detected TOC and none of the surface water or sediment samples had any detections of VOCs.

2.2.4.8 SUMMARY - 2000 TCA ENVIRONMENTAL REPORT - VALLEY ASPHALT

In 2000, Valley Asphalt retained TCA to oversee the removal of contaminated soil and drummed waste identified on the Valley Asphalt property. The area addressed was identified when workers installing a sewer line encountered drums in the excavation. Ohio EPA and Moraine fire officials responded on May 17, 2000 and instructed Valley Asphalt to obtain an environmental consultant to manage the removal of the drums and impacted soil.

TCA was responsible for managing the removal and overpacking of drums encountered and stockpiling the impacted soil removed. Materials were subsequently characterized and disposed off-Site. Records are unclear, but it appears that five drums containing a solid material were removed, characterized as a characteristic hazardous waste (Toxicity Characteristic Leaching Procedure (TCLP) metals) with PCBs, and disposed of at Clean Harbors. A total of 2,217 tons of non-hazardous impacted soil containing VOCs was disposed at Stony Hollow.

TCA identified a drinking water well and production well located in the vicinity of the excavation area. TCA collected groundwater samples from these wells. No VOCs were detected in the samples collected from either well. The TCA report did not indicate whether the wells were subsequently abandoned.

USEPA and Ohio EPA have advised the PRPs that they observed drum remnants and possibly intact drums in the sidewall of the excavation prior to its being backfilled. The TCA report does not suggest this.

2.3 EVALUATION OF LANDFILL LIMITS

This section presents CRA's assessment of the lateral and vertical extent of the landfill limits, the nature of the material landfilled and an evaluation as to whether the material that is encountered needs to be addressed by the presumptive remedy.

2.3.1 LATERAL EXTENT OF FILL

CRA's initial evaluation of the lateral limits over which material was backfilled was based on a combination of sources, including:

- USEPA's Aerial Photographic Analysis of South Dayton Dump and Landfill Site. The report included aerial photographs from 1936, 1949, 1954, 1960, 1970, 1973, 1981, 1988, 1994, and 2000;
- Aerial photographs from Wolpert Geographic Information Services and Montgomery County for the years 1956, 1957, 1968, 1973, 1974, 1975, 1978, 1981, 1986, 1987, 1990, 1991, 1993, 1994, 1995, and 1996;
- MCHD and Ohio EPA inspection reports and other correspondence discussing observations made during Site inspections; and
- Alcine Grillot's statements and documents regarding disposal operations and practices.

CRA inspected the aerial photographs and prepared an outline that denoted the limits of excavation and filling that were observed on each photograph. CRA then prepared a composite figure that encompasses all of the limits of backfilling that were observed on the individual photographs. The composite waste boundary limits are shown on Figure 2.3. Copies of the individual photographs with CRA's interpreted limits of filling are presented in Appendix A.

The aerial photographs show evidence of excavation within the entire limits of the estimated fill boundary. Essentially, fill materials seem to have been placed within most of the area previously excavated as part of the quarry operation. Excavation began along the northern part of the Site in the 1940s, in the area that is currently the south part of Valley Asphalt and throughout all of the former Jim City Salvage yard. As the excavation of the quarry progressed south over the next decade, visual evidence of filling in the previously excavated portion to the north is evident. Correspondence from Alcine Grillot suggests this northern portion of the Site was backfilled (primarily with ash).

Aerial photographs show the entire north and central portions of the Site (everything north of the east-west access road in line with B&B Pallet) were fully excavated by the 1960s. Backfilling in this entire area from the 1960s to 1990s is evident in historical aerial

photographs and is confirmed by Site inspections, investigation reports, and correspondence from Alcine Grillot.

The area south of the east-west access road appears in aerial photographs to have been excavated in the 1960s to 1970s. Only the eastern portion of the excavated area, based on aerial photographs and Site correspondence, appears to have been worked and may have been filled in the 1970s to 1980s. There is no evidence to suggest the area of the quarry pond was ever filled.

It does not appear that any excavation or backfilling occurred along the east-west access road through the center of the Site. The presence of electrical towers on the Site today and historically evident in aerial photographs dating back to as early as 1956 further suggest this area has not been excavated.

2.3.2 VERTICAL EXTENT OF BACKFILLING

The vertical extent of the waste is difficult to define in the absence of Site operations records or topographic maps dating back through the periods of excavation. The depth of fill can be estimated, however, through a combination of sources, including:

- boring logs within the backfilled areas;
- use of historical aerial photographs to determine, through the presence of ponded water, whether excavation activities may have been conducted below the groundwater table; and
- stereoscopic viewing of historical aerial photographs.

Boring information is limited, with most of the monitoring wells installed outside of the landfill. Some monitoring wells, though, including MW-101A, MW-203, MW-204, MW-209, and MW-212 and piezometer P-211 (installed by Ohio EPA and PFI from 1996 to 1999), were installed within the estimated boundaries of the landfill. The borehole logs show fill at depths ranging from 6 feet to 36 feet below grade. The depth of fill varies greatly due to the significant variations in ground surface elevations from the south-central portion of the Site to the southern portion of the Site and due to the variable extent of gravel extraction completed at the Site.

During drilling of monitoring wells MW-209 and P-211, located in the low-lying area adjacent to the quarry pond, 8 feet and 6 feet of fill were observed, respectively. Based

on a review of a recent topographic map (City of Moraine, 1990), this puts the elevation of the bottom of the fill a few feet (estimated) below the average groundwater elevation.

Well logs for MW-203 and MW-204 north of the access road through the center of the Site show a depth of fill of 13 feet and 23 feet, respectively. This suggests fill was likely placed below the water table at MW-204, but not at MW-203.

Additional soil boring logs along the west-central portion of the Site conducted by PSARA are available, but they do not accurately identify the differentiation between observed fill and native material that may be slightly stained.

As indicated in Sections 2.2.2.3 and 2.3.1, CRA reviewed aerial photographs from the years 1956 to 2000 in detail and others reviewed photographs dated prior to 1956. As the excavation of the sand and gravel progressed over the years, photographs show varying sizes of ponds. Although it is not possible to be certain whether the water is groundwater or surface water from recent precipitation, it seems likely based on the sizes of the surface water bodies (see photographs from the 1960s through 1970s) that excavation was conducted to the water table or below the water table. All of the excavated areas were subsequently backfilled (with the exception of the southwest portion of the Site where the quarry pond is located. This fill may extend to the groundwater or below the groundwater surface.

Stereoscopic viewing of overlapping pairs of diapositives was used by USEPA (Aerial Photographic Analysis for South Dayton Dump, USEPA, 2002) to obtain depth perspective on historical aerial photographs. This technique was used to confirm the areas of excavation and obtain a relative estimate of the depth of excavation.

Based on the information identified above, it is evident that the landfill thickness is variable (a few feet to greater than 30 feet) across the Site, with at least part of the Site containing fill material at depths below the water table.

2.3.3 NATURE OF BACKFILLED MATERIAL

The nature of the material backfilled on Site is a key factor in identifying data gaps and implementing a presumptive remedy. It is vital to distinguish typical landfill waste material (e.g., hazardous waste, drums, putrescible waste, etc.) from general fill materials (e.g., clean hard fill, construction and demolition debris) or low threat (e.g., foundry sand, fly ash) fill material used to fill to grade. This distinction must be made to

ultimately determine the appropriate limits for surface cover and the nature of the cover under the presumptive remedy.

Backfilling on Site is believed to have begun in the early 1940s and started at the northern portion of the Site. During the initial 20 to 25 years of operation, open burning of vegetation, wooden pallets, and garbage was the primary activity on Site, with landfilling a secondary activity. Thus, ash and slag would be expected to be the primary backfilled material in these areas. There is little information in the files to determine what other material was accepted for direct landfilling, but it is possible that soils, fly ash, foundry sand, or other material not amenable to open burning were accepted. Backfilling in this area was conducted in the 1940s to 1950s, which was prior to any Ohio EPA or MCHD Site inspections. The nature of the fill in this area has not been investigated.

Aerial photographs and documents in the file show that the central portion of the Site was filled from the late 1950s (northern part) to 1996. From the late 1950s until late 1960s, open burning of vegetation, wooden pallets, and garbage would likely have still been the primary activity on Site (as noted above), suggesting ash and slag would still be the predominant fill material at the northern portion of this area. The landfill operator has indicated that municipal waste was no longer accepted at the Site after 1955. While there may be some evidence over the years to contradict that statement, if it were generally true, very little municipal waste would be expected to be present on Site. The open burning on Site ceased circa 1970, and the main materials accepted after that date consisted of soil, construction and demolition debris, fly ash, foundry sand, and scrap metal (including empty drums) which were filled across the entire central area throughout the 1970s to 1980s. Records show the landfill accepted a small number of drummed liquid waste from 1973 to 1976. The available documents in the file suggest this material was likely backfilled along the west-central part of the Site near the air curtain destructor, and/or within an open trench at the east-central part of the Site. Also, garbage/putrescible material was forbidden as fill by MCHD in 1977. Based on the significant number of Site inspections (approximately 53 from 1969 to 1986), with all but a few indicating acceptable disposal, it is reasonable to believe that only a limited amount of hazardous waste, drums, and municipal waste was accepted at the Site. From the late 1980s to 1996, only fly ash, concrete, and other limited hard fill material were apparently accepted at the Site. Aerial photographs show this material being filled along the east-central and central portions of the central area of the Site.

Aerial photographs indicate backfilling of fly ash and concrete was conducted between the late 1970s and the early 1990s along the eastern portion of the southern part of the Site. Well logs in this area and surficial material observed during a Site inspection in

November 2005 confirm this, as well as the presence of concrete, brick, asphalt, foundry sand, chalk, and gravel. There is no evidence of municipal waste disposal in this area.

In summary, the nature of the material disposed on Site appears to consist primarily of fly ash, foundry sand, construction and demolition debris, and sand and gravel, with relatively small amounts of drummed waste and municipal waste backfilled within the east-central and west-central portions of the Site.

2.4 LANDFILL LEACHATE POTENTIAL

Landfill leachate is generated by surface water infiltrating through waste material and absorbing or otherwise collecting constituents from the waste as it passes through. Due to the Site topography and the absence of an impermeable cover, infiltration of precipitation and ponded water across the Site must occur. The composition of the water that flows out of the waste ("leachate") is dependent upon the nature of the waste.

The complicating factor at this Site is the interaction between infiltrating water and groundwater. It is apparent that significant portions of the backfilling that was done at this Site were completed at or below the water table surface. Thus, shallow aquifer groundwater quality is representative of leachate quality. The RI/FS should focus on shallow aquifer groundwater.

2.5 LANDFILL GAS POTENTIAL

Landfill gas is generated almost entirely from the decomposition of sanitary waste, where methanogenic bacteria consume carbon dioxide and organic acids in an anaerobic process that produces methane. As noted in Section 2.3.3, the central part of the Site is believed to contain very little municipal solid waste, with even less in the northern portion of the landfill, and no municipal waste in the southern portion. Thus, based on the low volume backfilled on Site, very little methane production would be anticipated. Ohio EPA's contractors recorded up to 1,000 ppm by volume of what was believed to be methane in one location. The potential for landfill gas and the migration of that gas to nearby occupied properties is excepted to be small, but it should be assessed during the RI.

2.6 WETLAND EVALUATION

The western boundary of the Site is defined by the eastern shore of the Great Miami River. Between the eastern shore and the known areas of fill placement at the Site is a tree-lined man-made levee constructed with fill materials. The grassy area between the levee and the shore line is considered a flood plain by the Federal Emergency Management Agency (FEMA) (per E&E 1991). Federally protected wetlands may also be present in the flood plain.

Similarly, there are several depressions within the Site boundary that may also potentially be wetlands. Wetlands are evidenced by specific plant and fauna species found in certain hydric soil conditions. A wetlands survey would identify any wetland areas that require protection or further assessment. This survey should be included as a RI activity.

3.0 POTENTIAL DATA GAPS

Following a thorough review of the documents available for the Site and an inspection of the Site (as described in Section 2.0), CRA identified potential data gaps to specify those areas where additional information is required to appropriately select and design the final remedy.

The use of a presumptive remedy for municipal landfills streamlines the data gap analysis by eliminating the need to collect significant amounts of data, such as soil/waste characterization throughout areas that will be addressed with a surface cover. Since the containment aspect of the presumptive remedy already addresses the migration pathways of the soil/waste on-Site, the data gaps will focus on collecting information regarding off-Site impacts or the potential for off-Site impacts due to migration of groundwater, surface water, leachate, or landfill gas.

The data gaps identified herein are consistent with the draft SOW and include:

- lateral extent of waste boundaries, type of waste (focusing primarily on municipal/industrial waste, as opposed to construction & demolition debris, foundry sand, and fly ash); and delineation of drum disposal areas based on the Valley Asphalt excavation in 2000.
- surface and subsurface soil investigation outside the limits of backfilling;
- leachate investigation;
- hydrogeologic investigation;
- surface water and sediment investigation;
- landfill gas assessment;
- wetland assessment; and
- geotechnical assessment.

Proposed investigative activities to address these data gaps are summarized in Table 3.1 and are discussed in the following sections.

3.1 LATERAL WASTE BOUNDARY DELINEATION

As discussed in Section 2.3, the estimated limits of backfill on Site are fairly well understood; however, due to the varying nature of the backfilled material it is not appropriate to categorize all the material as solid waste for the basis of designing a cover

system. Furthermore, it is not appropriate or feasible to utilize some type of caps under the presumptive remedy for certain types of material, such as hard fill. (Clean hard fill is acceptable under Ohio Administrative Code [3745-400-05] for use as fill material in construction projects to achieve grade.) Thus, CRA proposes confirming the type of backfill or waste material present within the identified fill limits to address this data gap and focus the work associated with the final remedy on the appropriate areas of the Site.

CRA will complete a geophysical investigation in the northern portion of the Site to delineate buried metal objects (i.e. drums). Based on the work completed at the Valley Asphalt property and based on the disposal history presented in Section 2.0, the survey area will cover 20 acres in the northern portion of the Site. The investigation will use both magnetic and electromagnetic (EM) techniques to identify both ferrous and non-ferrous buried metal objects. The magnetic survey will consist of total field and vertical gradient data collection, and the EM survey will utilize an EM31-MK2 instrument, operating simultaneously in metal detection and conductivity modes.

Prior to conducting the surveys, a grid consisting of parallel lines will be established over the area of investigation, which covers approximately 20 acres of the former landfill. The grid will utilize a number of control points that will be surveyed at 150-foot intervals. Survey lines spaced 20 feet apart will be established between the control points, and will be designated with a Cartesian coordinate system as required by instrument data loggers. Magnetic and EM measurements will be recorded at 1 second time intervals along these grid lines, and stored automatically in data loggers.

The geophysical investigation results will be presented as colored, contoured plots. The results will be used to finalize the locations of test pits and trenches to determine waste boundaries and characteristics, as described below.

Test trenches are proposed at several locations to verify the type of fill present and delineate the solid/industrial waste that needs to be covered under the presumptive remedy. Since municipal and industrial waste are known to have been disposed of in the central portion of the Site, investigative trenching will focus on the perimeter and outside of this area to define the area to be covered.

CRA proposes to excavate a total of nine test trenches along the limits of the landfill area. The proposed locations are shown on Figure 3.1. Each test trench would be approximately 30 feet long by 3 feet wide, and would extend to the bottom of fill and the horizontal limit of fill, to the extent possible. If the horizontal limit of fill is not determined in any planned 30-foot trench, the trench lengths will be extended to attempt to locate the edge of fill. The nature and depth of fill material would be visually

identified and recorded. This information would be utilized to define the lateral area of waste material to be covered under the presumptive remedy.

CRA proposes excavating four test pits in the central portion of the Site in the vicinity of the ACD due to the lack of documentation of the types of fill in the area and the depth of fill. Each test pit would be approximately 6 feet long by the width of the backhoe bucket and would extend to the base of the fill if possible. The locations of the test pits will be finalized based on the results of the geophysical investigation. The nature and depth of fill material would be visually identified and recorded.

3.2 SURFACE AND SUBSURFACE SOIL QUALITY

Little information exists regarding surface and subsurface soil quality at the Site outside the limits of the landfill. Limited information exists about the potential impact or absence of impact of hazardous substances transported in air or surface water from the fill areas to other portions of the Site. To address this data gap, CRA has proposed to collect surface and subsurface soil samples at each off-Site groundwater monitoring well. The soil sampling locations are described in the subsections that follow.

3.3 LEACHATE INVESTIGATION

As was discussed in Section 2.0, the filling on-Site has occurred at depths that are at or below the surface of the groundwater table. As a result, the impact of "leachate" on groundwater quality will be assessed though monitoring shallow groundwater quality using existing monitoring wells and new wells installed as part of the hydrogeologic investigation described below.

In addition to this hydrogeologic investigation, CRA will complete a thorough assessment of leachate seeps on the banks of the levee to the west and north of the Site. This assessment will consist of a visual inspection of the entire levee bank surface with an objective to document any evidence of groundwater or leachate discharge from any portion of the bank. CRA will pay special attention to erosion rills, areas of stressed vegetation, and wet or saturated areas.

3.4 HYDROGEOLOGIC CHARACTERIZATION

There is a monitoring well network at the Site. The network has been installed to assess groundwater quality in the upper aquifer at the Site perimeter, which is appropriate. However, USEPA has noted, and CRA concurs, that the monitoring wells do not necessarily straddle the surface of the water table, which could result in water table surface impacts being understated by the groundwater quality data from the existing wells.

As noted in Section 2.0, a clay confining layer is present between the shallow and lower aquifer throughout most of the geographic region; however, discontinuities that may be present in the confining layer allow the potential for groundwater contaminants in the shallow aquifer to impact the lower aquifer. The lower confining layer has not been penetrated during previous investigations at the Site. Both the shallow and lower aquifers generally flow toward the south.

In order to assess the potential impact of fill on the Site or the lower aquifer groundwater quality, CRA proposes to install deep groundwater monitoring wells adjacent to existing wells where upper aquifer impacts have been noted.

CRA proposes to use the existing monitoring well network, three new shallow groundwater monitoring wells that are installed to straddle the upper aquifer surface adjacent to existing monitoring wells, three deep groundwater monitoring wells that will be installed at the same locations to characterize groundwater quality in the lower aquifer, and one shallow source area well completed near the location of the ACD.

USEPA has stated that vertical profiling has not been completed at the Site. This is accurate; however, CRA does not believe it is necessary based on the data. However, CRA is also aware that USEPA Region 5 is unlikely to accept the hydrogeological characterization without vertical profiling, so prior to drilling any monitoring wells, CRA will complete vertical aquifer profiling for VOCs using a geoprobe, simulprobe, or if conditions require it, a cone penetrometer (CPT) drill. The vertical profiling will include groundwater sample collection at 5-foot intervals in the saturated zones encountered.

In addition to the proposed nested wells, the groundwater analytical data for samples collected from MW-210 and MW-101A indicate a potential for off-Site migration of impacted upper aquifer groundwater, so CRA proposes to install two shallow groundwater monitoring wells downgradient from these locations following the completion of vertical profiling. If the vertical profiling indicates an impact at these

locations in the lower aquifer, CRA will also install a lower aquifer groundwater monitoring well at these locations.

The proposed locations are shown on Figure 3.2. The specific rationale for each location is listed below.

Proposed Location	*Description*	*Rationale*
MW-101A-S	shallow groundwater monitoring well	fill data gap at water table interface
MW-101A-D	deep groundwater monitoring well, vertical profiling	characterize lower aquifer groundwater quality
MW-210-S	shallow groundwater monitoring well	fill data gap at water table interface
MW210-D	deep groundwater monitoring well, vertical profiling	characterize lower aquifer groundwater quality
MW-201-S	shallow groundwater monitoring well	fill data gap at water table interface
MW-201-D	deep groundwater monitoring well, vertical profiling	characterize lower aquifer groundwater quality
MW-213-S	shallow groundwater monitoring well, vertical profiling	characterize downgradient upper aquifer groundwater quality
MW-214-S	shallow groundwater monitoring well, vertical profiling	characterize downgradient upper aquifer groundwater quality
MW-215-S	shallow groundwater monitoring well	source area well

The RI should include two rounds of groundwater quality monitoring at all new and existing wells, periodic synchronous groundwater and surface water elevation measurements, slug tests on all new monitoring wells, and, if access is readily arranged, a round of water quality monitoring of nearby private or public supply wells.

In addition, at each new monitoring well location that is on Site, CRA will collect one surface and one subsurface soil sample during the drilling of the soil boring at that location for chemical analyses. The proposed monitoring well locations are shown on Figure 3.2.

Groundwater samples from permanent monitoring wells will be analyzed for VOCs, PAHs, metals, and natural attenuation parameters.

3.5 SURFACE WATER AND SEDIMENT INVESTIGATION

The database for surface water and sediment quality is sparse, but the data does not indicate an impact on surface water and sediment from landfill operations. This is logical since ponded surface water on the Site acts as a source of recharge to the upper aquifer.

Nevertheless, during the Site inspection, CRA noted the presence of four apparently empty drums in the quarry pond. Therefore, it is appropriate to collect additional surface water sample and sediment samples to characterize the quality of these matrices. CRA will collect one surface water sample and two sediment samples from the quarry pond. The analytical data for these samples will supplement previous analytical data for sediment samples collected by Ohio EPA in 1996 and by PFI in 2000-2005.

In addition, CRA will survey the Site to determine surface water drainage routes.

3.6 LANDFILL GAS

As noted in Section 2.5, historical records for the Site suggest municipal solid waste comprises a small percentage of the material backfilled, and is likely limited to the central portion of the Site to the east and west. In addition, the age of the landfill suggests the potential for landfill gas generation is greatly reduced. Thus, only low concentrations of methane are anticipated in soil gas. However, due to the presence of commercial, industrial, and residential structures bordering the Site, landfill gas probes are proposed to confirm landfill gas generation rates and establish whether or not off-Site migration of landfill gas is occurring at concentrations that could be above the lower explosive limit (LEL). Figure 3.3 shows the location of the five proposed landfill gas probes. One probe is located along the west-central part of the Site where municipal waste may have been deposited, and the other four are located along the east and southeast Site boundary where structures are located.

During installation, CRA will collect one surface and one subsurface soil sample for chemical analyses. Following installation, CRA will collect two rounds of soil gas samples from each probe and screen the samples on-Site for methane concentration and LEL readings. CRA will also collect one round of samples for VOC analyses using USEPA method TO-15. The data will be used to determine if the presumptive remedy for the prevention of off-Site migration of landfill gas at concentrations above the LEL is necessary. The data will also be used to assess potential human health risks at the landfill boundary due to VOC migration.

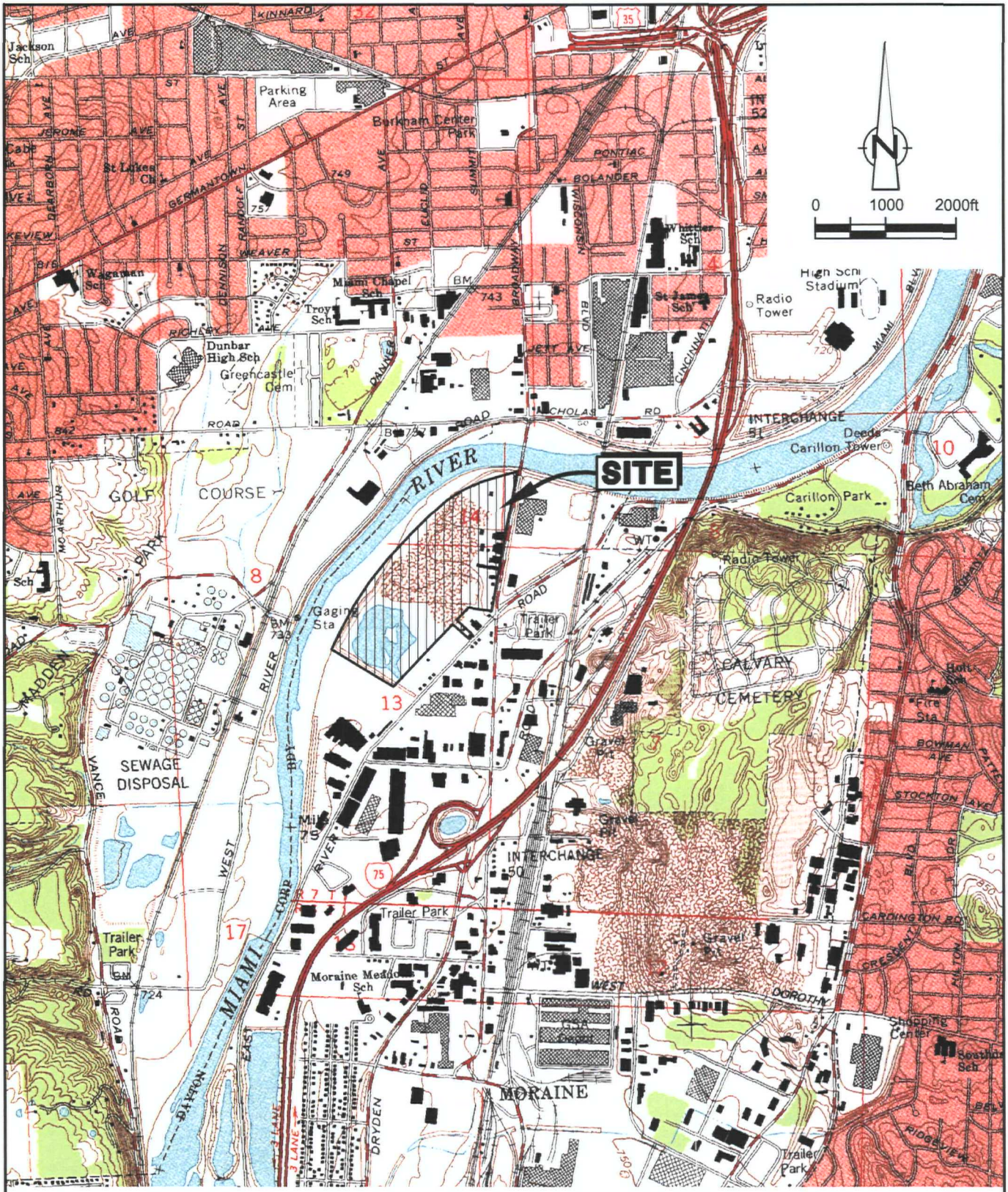
3.7 WETLAND ASSESSMENT

A wetland delineation study will be conducted as part of the ecological assessment at the Site. This study will include the identification and delineation of wetlands (if any) that are present at the Site. If wetlands are found to be present at the Site, then their function and extent will be evaluated in order to support any mitigation or permit requirements that may be prescribed by the U.S. Army Corp of Engineers.

3.8 GEOTECHNICAL ASSESSMENT

During the course of the RI, CRA will complete soil borings as part of the groundwater monitoring well installation and landfill gas probe installations. Select soil samples (up to 5) from on-Site locations will be submitted for grain size, fraction of organic carbon, plasticity index, porosity permeability, and Atterburg limits (in addition to other analyses that may be performed for each specific task) to assist in cap design and in evaluating potential future redevelopment alternatives. The locations of the samples will be selected to allow for a representative evaluation of the entire Site.

In addition, CRA will complete a survey of the Site as described in Section 3.5, above.



SOURCE: USGS QUADRANGLE MAP
DAYTON SOUTH, OHIO

figure 1.1

SITE LOCATION MAP
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-00(001)GN-WA001 DEC 07/2005

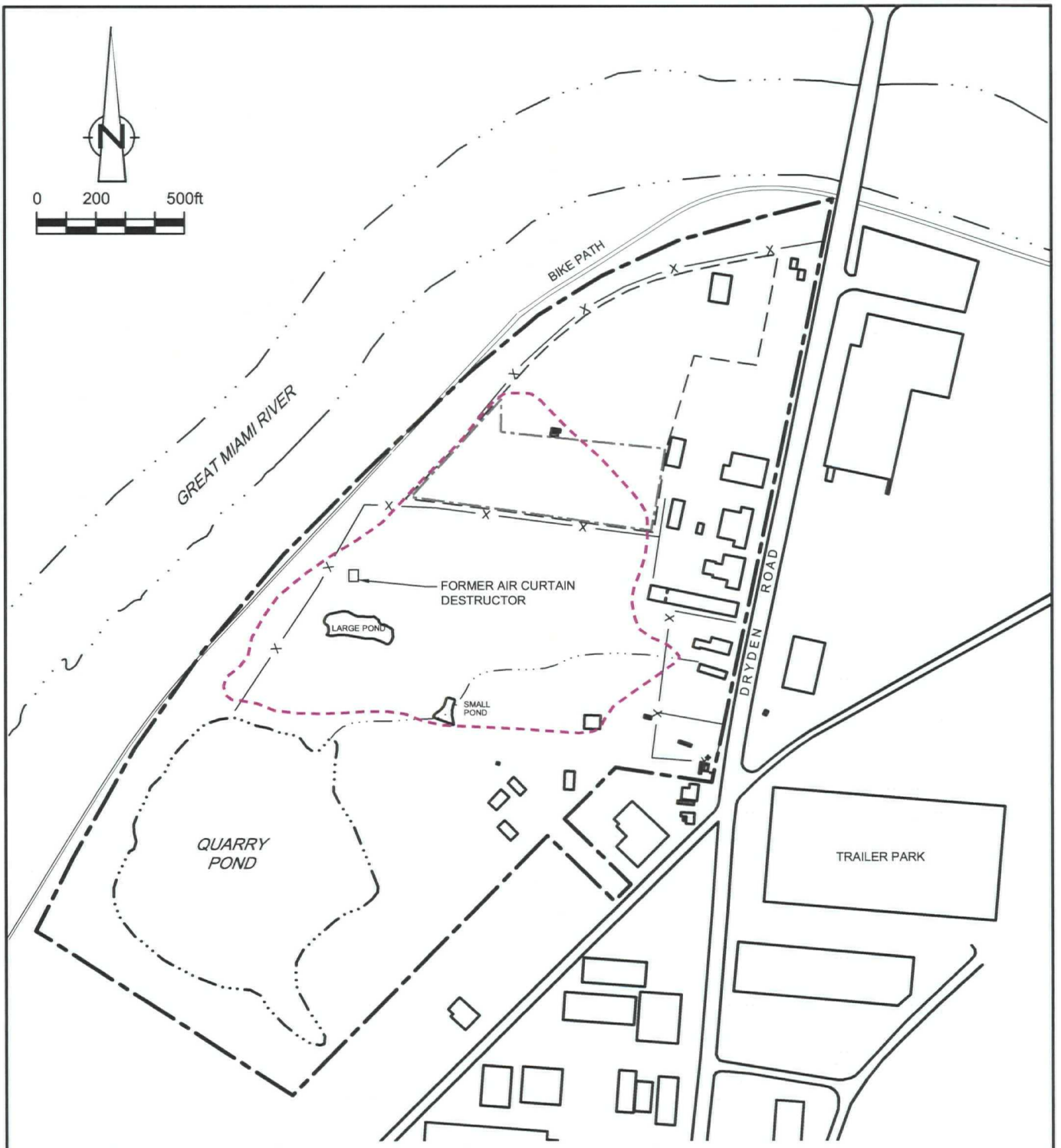
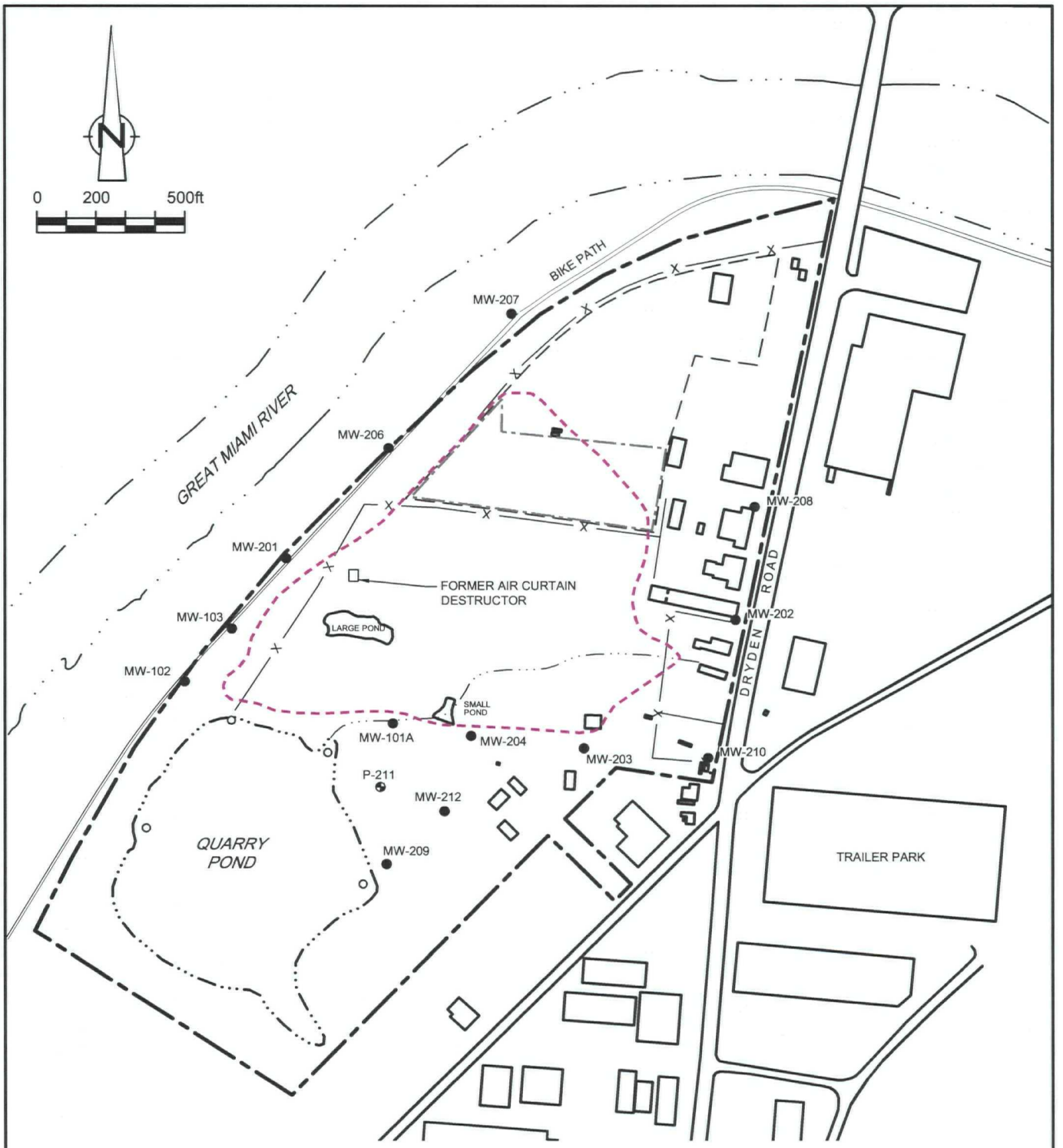


figure 1.2

SITE PLAN
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
USGS AERIAL PHOTOGRAPH, DAYTON SOUTH, 1994.

38443-00(001)GN-WA002 DEC 07/2005



LEGEND

- MW-206 ● INTERMEDIATE ZONE MONITORING WELL LOCATION
- P-211 ⊕ PIEZOMETER LOCATION
- ○ GAUGING STATION
- SITE BOUNDARY (EPA 2005)
- FENCE
- FORMER AUTO SALVAGE YARD
- VALLEY ASPHALT PLANT
- LANDFILL - CRA LIMITS

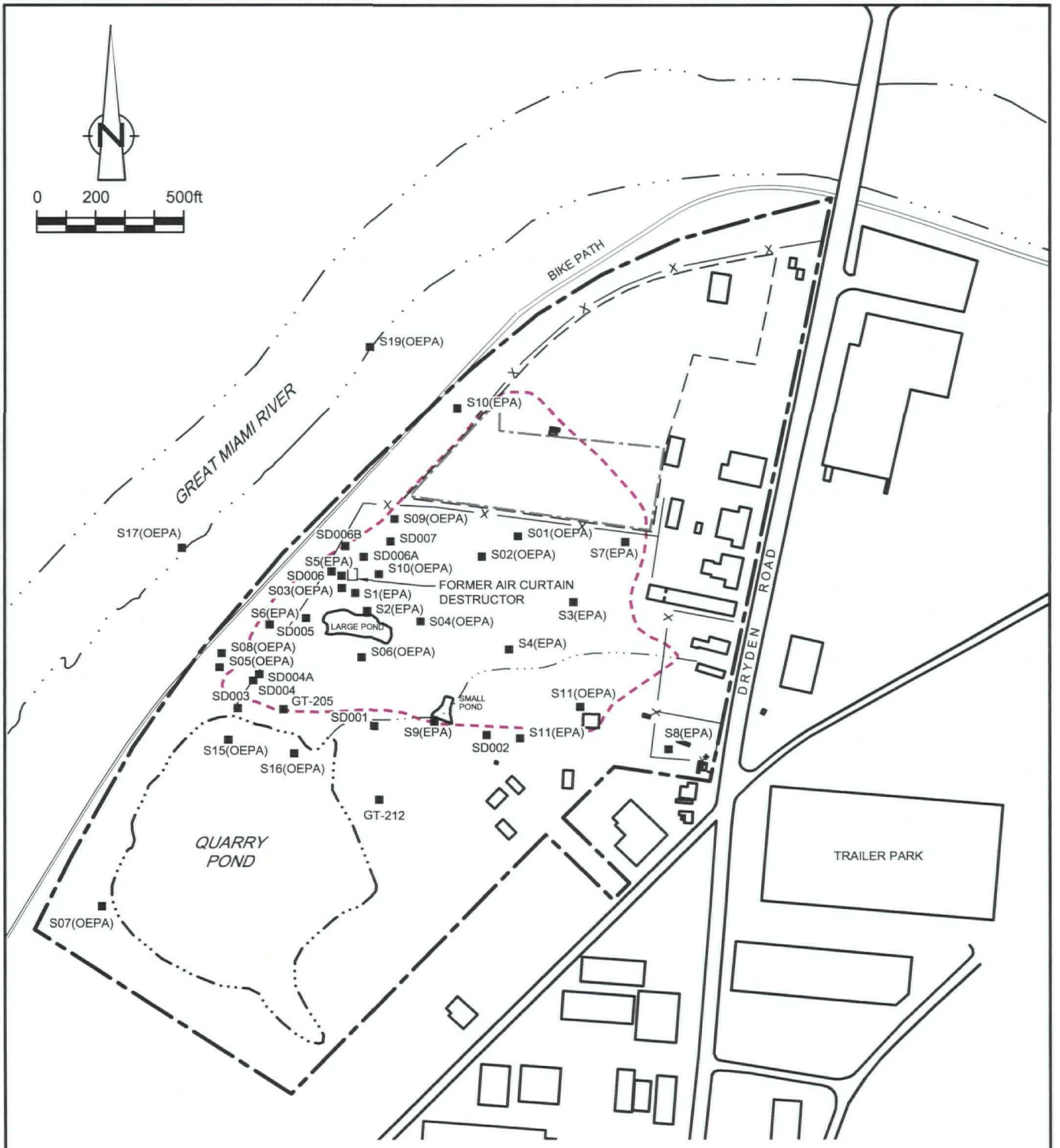
figure 2.1

EXISTING GROUNDWATER MONITORING WELLS AND PIEZOMETER LOCATIONS SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
USGS AERIAL PHOTOGRAPH, DAYTON SOUTH, 1994.

38443-00(001)GN-WA006 DEC 07/2005



LEGEND

- S01 ■ SOIL BORING LOCATION
- SITE BOUNDARY (EPA 2005)
- X FENCE
- FORMER AUTO SALVAGE YARD
- VALLEY ASPHALT PLANT
- LANDFILL - CRA LIMITS

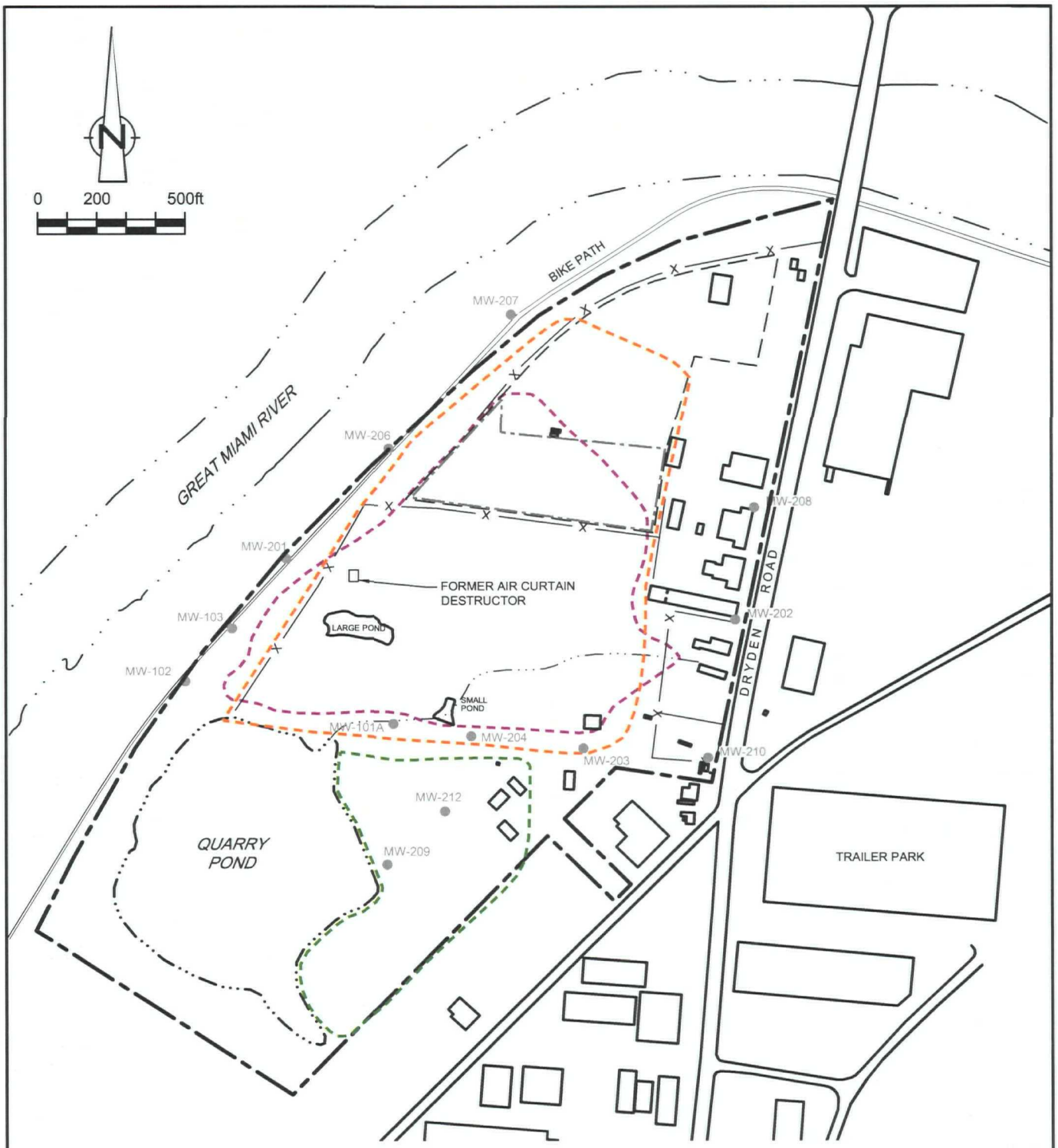
figure 2.2

HISTORICAL SOIL SAMPLING AND BOREHOLE LOCATIONS SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
USGS AERIAL PHOTOGRAPH, DAYTON SOUTH, 1994.

38443-00(001)GN-WA007 DEC 07/2005



LEGEND

- MW-206 ● INTERMEDIATE ZONE MONITORING WELL LOCATION
- SITE BOUNDARY (EPA 2005)
- x FENCE
- FORMER AUTO SALVAGE YARD
- VALLEY ASPHALT PLANT
- LANDFILL - EPA LIMITS
- LANDFILL - CRA LIMITS
- POTENTIAL FILL - CRA LIMITS

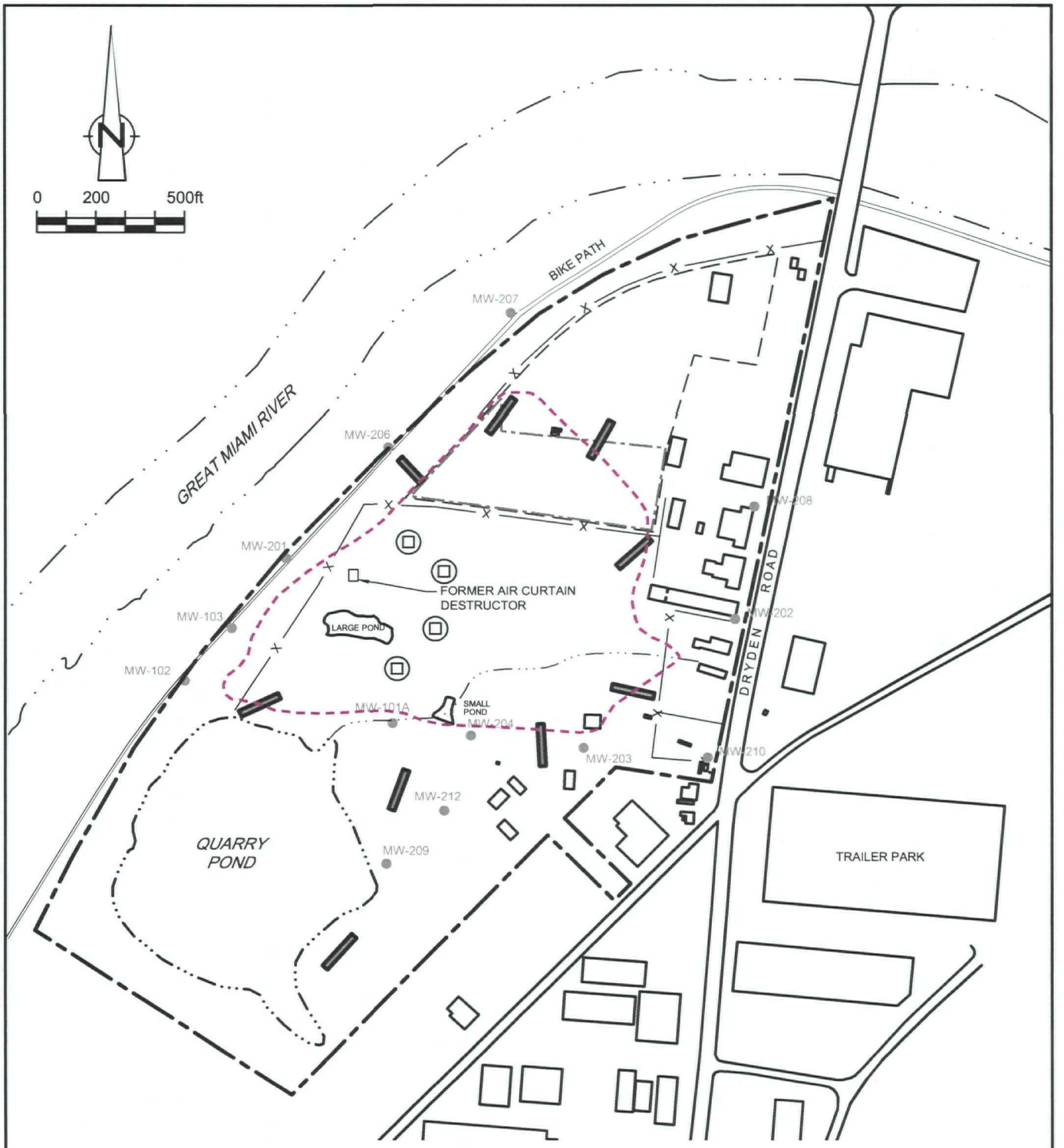
figure 2.3

LATERAL EXTENT OF LANDFILL LIMITS SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
USGS AERIAL PHOTOGRAPH, DAYTON SOUTH, 1994.

38443-00(001)GN-WA008 DEC 07/2005



LEGEND

- MW-206 ● INTERMEDIATE ZONE MONITORING WELL LOCATION
- SITE BOUNDARY (EPA 2005)
- FENCE
- FORMER AUTO SALVAGE YARD
- VALLEY ASPHALT PLANT
- LANDFILL - CRA LIMITS
- PROPOSED TEST TRENCH LOCATION
- PROPOSED TEST PIT LOCATION

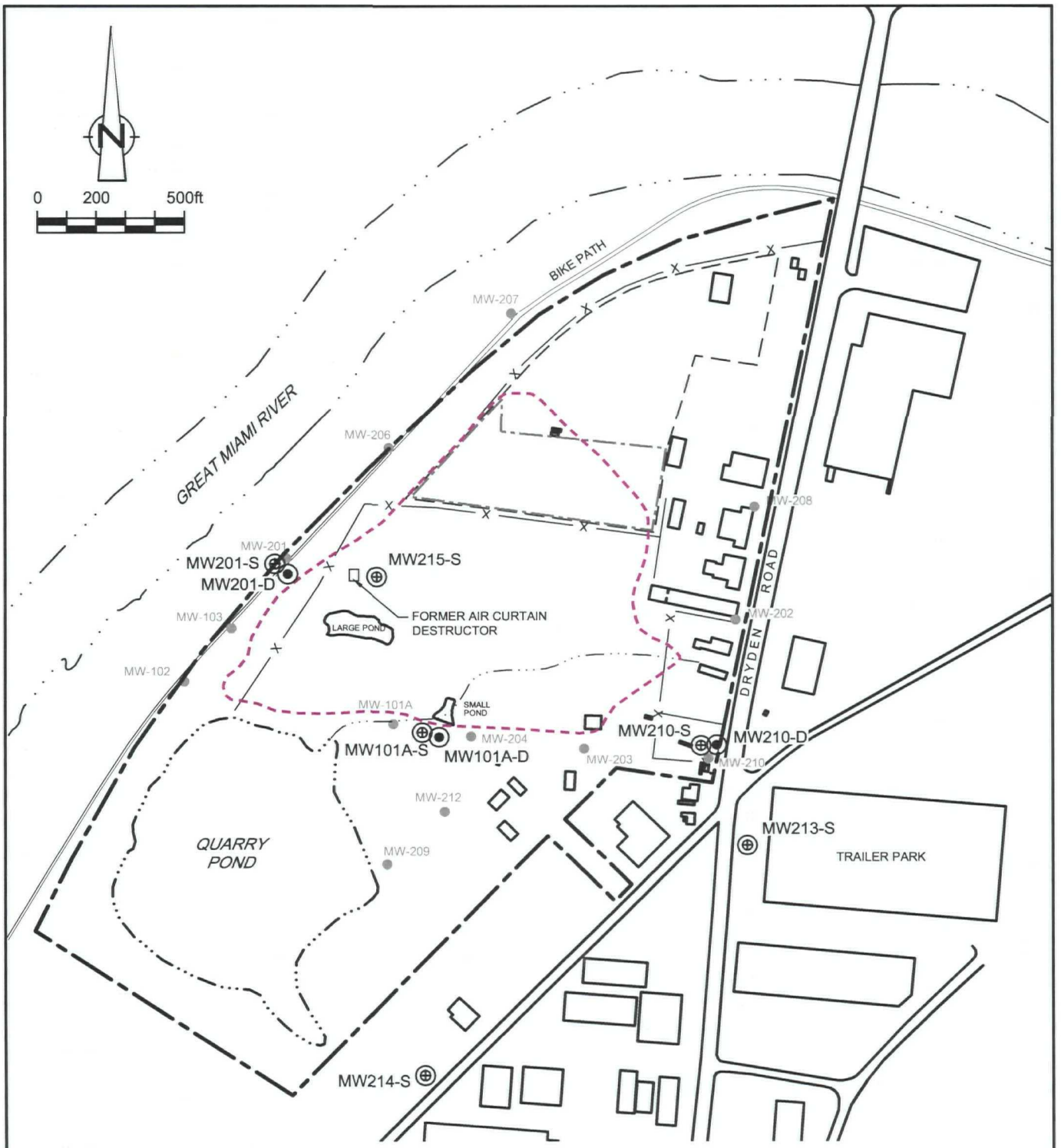
figure 3.1

PROPOSED TEST TRENCH AND TEST PIT LOCATIONS SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
USGS AERIAL PHOTOGRAPH, DAYTON SOUTH, 1994.

38443-00(001)GN-WA003 DEC 07/2005



LEGEND

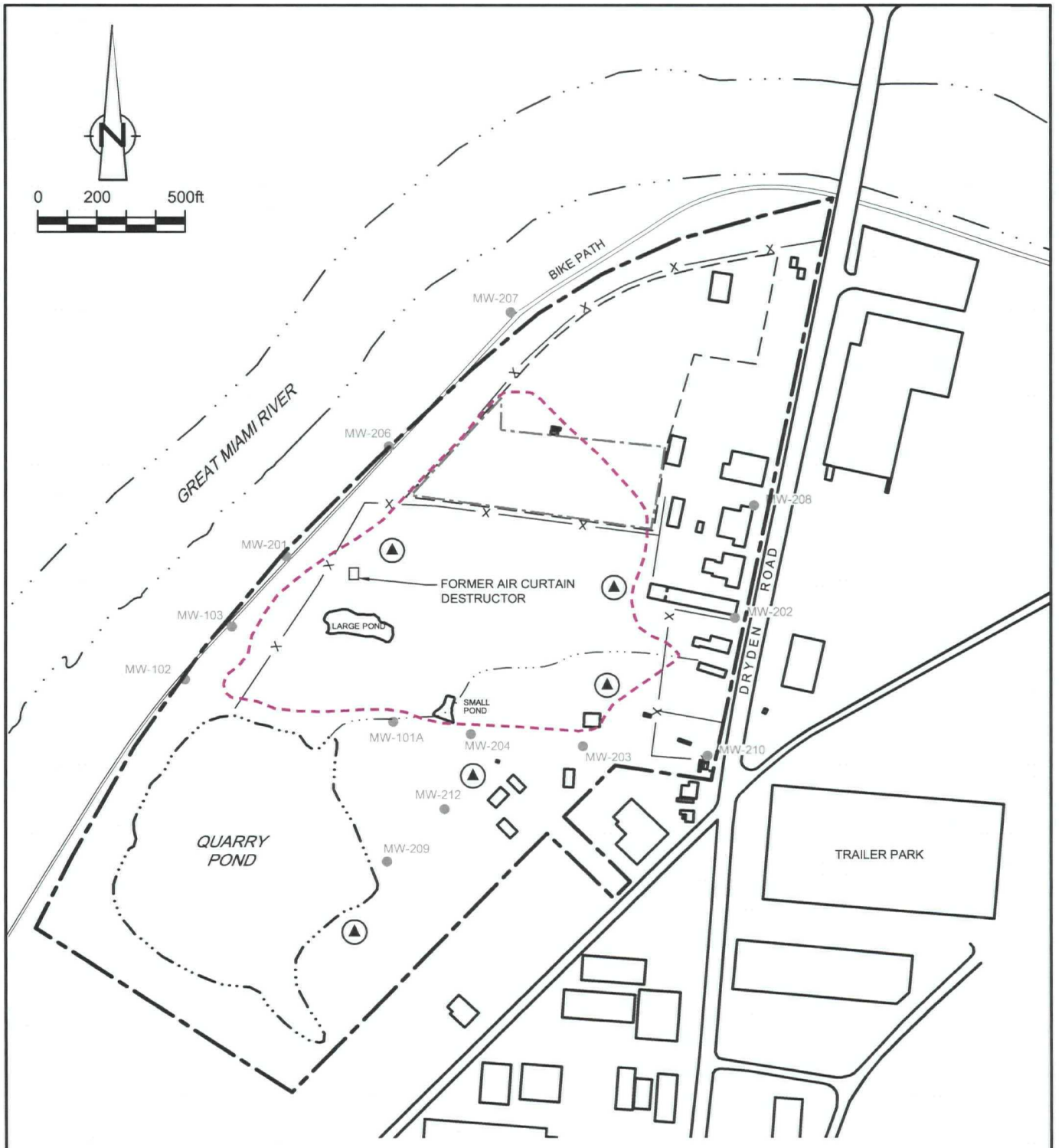
- MW-206 ● INTERMEDIATE ZONE MONITORING WELL LOCATION
- SITE BOUNDARY (EPA 2005)
- FENCE
- FORMER AUTO SALVAGE YARD
- VALLEY ASPHALT PLANT
- LANDFILL - CRA LIMITS
- PROPOSED SHALLOW GROUNDWATER MONITORING WELL LOCATION
- PROPOSED DEEP GROUNDWATER MONITORING WELL LOCATION

figure 3.2

PROPOSED WELL LOCATIONS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
USGS AERIAL PHOTOGRAPH, DAYTON SOUTH, 1994.

38443-00(001)GN-WA004 DEC 07/2005



LEGEND

- MW-206 ● INTERMEDIATE ZONE MONITORING WELL LOCATION
- SITE BOUNDARY (EPA 2005)
- X FENCE
- FORMER AUTO SALVAGE YARD
- VALLEY ASPHALT PLANT
- LANDFILL - CRA LIMITS
- ▲ PROPOSED LANDFILL GAS PROBE LOCATION

figure 3.3

PROPOSED LANDFILL GAS PROBE LOCATIONS SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
USGS AERIAL PHOTOGRAPH, DAYTON SOUTH, 1994.

38443-00(001)GN-WA005 DEC 07/2005

TABLES

TABLE 2.1

FILE REVIEW
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

File Name	*Date Prepared*	*Prepared by*	*Sent to*
SDD - Summary of Information	Oct-05	ITW	PRPs
Statement of Work for a RI/FS at SDD	Sep-05	EPA	PRPs
Draft AOC	Sep-05	EPA	PRPs
Reuse Assessment & Concept Plan for Miami Valley Enterprise Center	Feb-05	Vita Nuova	PRPs
Comments on Proposed NPL Listing & HRS Documentation	Nov-04	Haley & Aldrich	EPA
Descriptions of 14 Proposed Site and 2 Final Sites Added to the NPL in Sept 2004	Sep-04	EPA	EPA
HRS Documentation Record	Aug-04	Ohio EPA/ TT	unknown
General Notice Letter for SDD	Aug-04	EPA	PRPs
Correspondence from Richard Brinkman to Kristine Schnoes RE: Stand-by Drinking Water Wells	Apr-04	Mont. Co. Engr.	TetraTech
Montgomery County e-mail to Kristine Schnoes RE: Standby Drinking Water Wells	Apr-04	Montgomery Co.	TetraTech
Project Note RE: Ohio EPA STEP Report - Analytical Data Package	Mar-04	TetraTech	TetraTech
Record of Telephone Call	Feb-04	TetraTech	Dephi
Project Note RE: '91 SSI Report - Analytical Data Package	Feb-04	TetraTech	TetraTech
City of Oakwood fax to TetraTech RE: Municipal Drinking Water Wells	Feb-04	Oakwood	TetraTech
Correspondence from City of West Carrollton RE: Municipal Drinking Water Wells	Feb-04	West Carrollton	TetraTech
Ohio DNR correspondence to Amber Conforti RE: Well Logs for Wells within 1 mile of SDD	Feb-04	Ohio DNR	TetraTech
Superfund Chemical Data Matrix Methodology (HRS hazardous substance factor values)	Jan-04	EPA	EPA
Draft Title Search Addendum Report	May-03	TechLaw	EPA
Ohio EPA e-mail correspondense (Gina Hayes to Amber Conforti) RE: Drinking water wells located near SDD	Feb-03	OEPA	TetraTech
Correspondence from Matt Justice to Karen Cubulskis and Request for Information	Nov-02	OEPA	EPA
draft South Dayton Landfil Notes	Nov-02	Payne Firm	PRPs
Ohio EPA internal memo discussing enforcement	Oct-02	Ohio EPA	Ohio EPA
Special Notice Letter for SDD	Sep-02	EPA	PRPs
Addendum to Remedial Action Plan, DP&L Transportation Center	Aug-02	LJB	DP&L
Environmental Data Summaries	Jul-02	Payne Firm	PRPs
Aerial Photographic Analysis of SDD	Jun-02	EPA	EPA
Draft Title Search Report	Mar-01	TechLaw	EPA
Environmental Remediation Report at Valley Asphalt	Sep-00	TCA Env.	Valley Asphalt

TABLE 2.1

FILE REVIEW
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

File Name	*Date Prepared*	*Prepared by*	*Sent to*
Ohio EPA Emergency Response Section District Office Investigation Report	May-00	OEPA	OEPA
Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater	Sep-98	EPA	EPA
Correspondence RE: Ohio EPA's endorsement of West Carrollton's Wellhead Protection Plan	Mar-98	OEPA	West Carrollton
Ohio EPA Site Team Evaluation Prioritization (STEP) Report for SDD	Dec-96	Ohio EPA	unknown
Installation of Groundwater Monitoring Wells at the SDD	Jun-96	PSARA Tech.	OEPA
Focused Site Inspection Prioritization Site Evaluation Report	Feb-95	PRC Env.	EPA
Site Screening Inspection (SSI) Report for SDD	Sep-91	Ecology & Env.	unknown
Ohio EPA files - Inspection letters	Jan-91	MCHD	Grillot
Ohio EPA files - Inspection letters	Oct-90	MCHD	Grillot
Ohio EPA files - letter exempting from LFG monitoring	Apr-90	Ohio EPA	Grillot
Ohio EPA files - letter to Delco advising that SDL no longer can accept flyash	Apr-90	MCHD	Delco
Ohio EPA files - letter requesting extension to dispose of flyash until alternate can be worked out.	Mar-90	Delco	MCHD
Ohio EPA files - analytical results of flyash from Delco	Feb-90	Delco	Grillot
Ohio EPA files - analytical results of flyash from Delco	Feb-90	Delco	Grillot
Ohio EPA files - letter advising to cease accepting any waste (includes receipt for certified mail)	Jan-90	MCHD	Grillot
Ohio EPA files - letter advising that not landfilling, hence no need for monitoring	Aug-89	Grillot	Ohio EPA
Ohio EPA files - request of statement that not operating a solid waste facility	Apr-87	MCHD	Grillot
Ohio EPA files - do not need solid waste permit	Apr-87	Grillot	MCHD
Ohio EPA files - Open burning not permitted	Apr-86	RAPCA	Grillot
Ohio EPA files - Solid waste disposal facility application for license	Jan-86	Grillot	MCHD
Preliminary Assessment Narrative and Form	May-85	Ohio EPA	OEPA
Hobert Corporation correspondence	Apr-84	Hobart	OEPA
Ohio EPA files - Insp report -'don't accept drums with waste in them'	Feb-83	MCHD	
Ohio EPA files - Insp report -'don't accept drums with waste in them'	Dec-82	MCHD	
Ohio EPA files - Insp report - haz waste drums	Apr-82	MCHD	
Industrial Waste Disposal - Disposal Sites	Jun-81	IWD	EPA
Ohio EPA files - Hobart's waste generation survey	Apr-81	Ohio EPA	Hobart
Ohio EPA files- letter to Peerless Transport advising that flyash can be taken to SDL.	Mar-80	MCHD	Peerless Transport

TABLE 2.1

FILE REVIEW
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

File Name	*Date Prepared*	*Prepared by*	*Sent to*
Ohio EPA files - letter confirming that '..drums.. have been moved..'	Jan-80	MCHD	Grillot
Ohio EPA files - RCRA land disposal inventory worksheet	May-79	Don Marshall	
Ohio EPA file - letter advising that state licence to operate expires unless new application and payment are received	Sep-78	MCHD	Grillot
Mont. Co. Comb. Health District corresponse	May-78	MCCHD	Grillot
Ohio EPA file - letter describing nuisance conditions	May-78	MCHD	Grillot
Ohio EPA files - approval of Solid Wsate Disposal Facility	Jan-71	ODH	Grillot
Ohio EPA files - conformance of landfills	Jan-71	MCDH	ODH
Ohio EPA files - Approval to burn certain materials..	May-70	MCDH	Grillot
Letter in OEPA File from Grillot to MCHD- waiver for engineering plans	Dec-69	Grillot	MCHD
Letter in OPEA File from Grillot to MCDH"Does not operate acLandfill since.."	Sep-69	Grillot	MCHD
Letter in OPEA File from Grillot to MCDH "As of January 1, 1970, will only accept dirt, concrete, flyash, etc" and engineering plans"	Sep-69	Grillot	MCHD
Ohio EPA file - nuisance report for open burning - abated	Mar-69	MCHD	
Permit application (approved)	Jan-69	Grillot/ MCHD	
Permit application (draft)	Dec-68	Grillot	
Ohio EPA files - dismissal entry and order, copy of subpoena, notes - matter of State of Ohio vs Grillot	1970		
MCHD Inspection reports (Garbage, paint, thinner are being dumped and not covered)	various	MCHD	Grillot
DP&L correspondence	varies	DP&L	Ohio
USGS - Groundwater Resources of the Dayton Area	1966	USGS	unknown
USGS - Groundwater Migration Pathway Target Distance Limit Map (shown on 7.5-minute topo)	>1992	TetraTech	EPA
Mont. Co. Health Dept permit application map	unknown	MCCHD	unknown
draft Aerial Photographic Review	unknown	Payne Firm	PRPs
draft Site History	unknown	Payne Firm	PRPs

TABLE 2.2

AREA WATER PRODUCTION AND MONITORING WELLS
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Name	*Location*
I. Public Supply Wells	
City of Dayton Well fields (two)	• upgradient more than five miles north-northeast and northeast of the Site. • serves approximately 420,000 people.
City of West Carrollton Well field (one)	• downgradient approximately four miles southwest of the Site. • serves approximately 12,000 people.
City of Oakwood Well fields (two)	• upgradient approximately two miles east of the Site. • serves approximately 9,500 people.
Montgomery County Well fields (four)	• downgradient approximately two and a half to three and a half miles south-southeast, south and south-southwest of the Site. • offline and none have been used since 1989. • one (Lamme Road Well field) has been abandoned. • one (Miami Shores Well field) is maintained as a standby well field. • two (Dryden Road North and South Well fields) have shown contamination and have an uncertain future due to contamination of the source aquifer, according to Ohio EPA.
II. Industrial and Residential Users	
GM/Delphi/Delco/Moraine plant	• approximately 0.75-mile upgradient northeast of the Site.
Green Trailer Park	• approximately 1.0-mile south of the Site.
Other wells more than one mile away	

TABLE 2.2

AREA WATER PRODUCTION AND MONITORING WELLS
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Name	*Location*
III. Non-Potable Users	
Dayton Power & Light	• approximately 0.25 mile east of the Site.
Monsanto	• approximately 0.5 mile north of the Site across the Great Miami River.
GM/Delphi/Delco plant	• approximately 0.75 mile northeast of the Site across the Great Miami River.
National Cash Register Company	• approximately 1.75 miles.
Sunshine Biscuit Company	• approximately 1.5 miles north-northeast of the Site across the Great Miami River.
Aetna Paper Company	• approximately 1.75 miles north-northeast of the Site across the Great Miami River.
St. Elizabeth Hospital	• approximately 1.75 miles northeast of the Site across the Great Miami River.
Former GM Frigidaire Plant, now Delphi Moraine	• approximately 1.75 miles south of the Site.
Miami Valley Hospital	• approximately 2.0 miles northeast of the Site across the Great Miami River.
IV. Other Industrial Users	
Valley Asphalt Corporation	• adjacent to the Site to the north. • TCA Environmental 2000 Report states that the well was used solely for sanitary purposes. The well was shut down in 2000 following the removal project at the Site.
Moraine Recycling	• approximately 0.4 mile south from the Site.
Mid-States Development	• approximately 0.5 mile south-southwest from the Site.

TABLE 2.2

AREA WATER PRODUCTION AND MONITORING WELLS
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Name	*Location*
Rock Processing	• approximately 0.5 mile southeast from the Site.
Mosier Tree Company	• approximately 0.5 mile southeast from the Site.
Blaylock Trucking	• approximately 0.6 mile southeast from the Site.
Dayton Steel Foundry	• approximately 0.75 mile north of the Site across the Great Miami River.
Metallurgical Services located	• approximately 0.75 mile south-southwest from the Site.
The Myron Cornish Company	• approximately 0.9 mile southeast from the Site.
Asphalt Products Specialty Paper	• approximately 1.0 mile northeast from the Site across the Great Miami River.
The University of Dayton Arena Specialty Paper	• approximately 1.0 mile northeast from the Site across the Great Miami River.
Mauch Labs	• approximately 1.0 mile south from the Site.
Moraine Box Company	• approximately 1.0 mile south-southeast from the Site.
Harrison Radiator	• located approximately 1.0 mile south from the Site.
Moraine materials	• located approximately 1.1 mile southeast from the Site.
V. Monitoring Well Networks	
Dayton, Power & Light	• located approximately 0.25-mile east of the Site.
Monsanto Chemical	• approximately 0.5-mile north of the Site across the Great Miami River.

TABLE 2.2

AREA WATER PRODUCTION AND MONITORING WELLS
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Name	*Location*
Mayo Company	• approximately 0.5 north of the Site across the Great Miami River.
GM/Delphi/Delco/Moraine plan	• approximately 0.75-mile upgradient northeast of the Site.
Dayton Sewage Disposal	• approximately 0.75-mile west of the Site across the Great Miami River.
Cardington Road landfill	• approximately 0.8-mile southeast of the Site.
National Cash Register Company	• approximately 1.75 miles northeast of the Site across the Great Miami River.
Former GM Frigidaire Plant, now Delphi Moraine	• approximately 1.75 miles south of the Site.
Hoban Brass Foundry	• approximately 1.75 miles northeast of the Site across the Great Miami River.

TABLE 2.3

SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES - EEI (1990)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*S1(EPA)*	*S2(EPA)*	*S3(EPA)*	*S4(EPA)*	*S5(EPA)*	*S6(EPA)*	*S7(EPA)*	*S8(EPA)*	*S9(EPA)*	*S10(EPA)*	*S11(EPA)*
Sample ID:		*S1*	*S2*	*S3*	*S4*	*S5*	*S6*	*S7*	*S8*	*S9*	*S10*	*S11*
Sample Date:		*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*
Sample Depth:		*1-2 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*1-2 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS Background*	*0-1 ft BGS*
Parameter	*Units*											
Volatiles												
1,2-Dichloroethene (total)	ug/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	200	5 U	5 U	5 U
2-Butanone (Methyl Ethyl Ketone)	ug/kg	2 J	10 U	10 U	10 U	1 J	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	10 U	10 U	10 U	10 U	10 U	36 J	10 U	10 U	10 U	10 U	10 U
Acetone	ug/kg	5 U	5 U	5 U	5 U	5 U	25 J	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	ug/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	11	5 U	5 U	5 U
Toluene	ug/kg	3 J	5 U	5 U	5 U	7	9 J	4 J	2 J	5 U	5 U	5 U
Trichloroethene	ug/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4 J	5 U	5 U	5 U
Xylene (total)	ug/kg	5 U	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U	5 U	5 U
Semi-Volatiles												
2-Methylnaphthalene	ug/kg	1800	250 J	500 J	330 U	950	130 J	750 J	190 J	330 U	330 U	240 J
Acenaphthene	ug/kg	330 U	330 U	680 J	330 U	330 U	1200	95 J	330 U	330 U	110 J	330 U
Anthracene	ug/kg	120 J	330 U	2900	330 U	330 U	3000	300 J	330 U	330 U	340 J	330 U
Benzo(a)anthracene	ug/kg	310 J	74 J	8500	330 U	170 J	6900	1100	330 U	330 U	1800	430 J
Benzo(a)pyrene	ug/kg	230 J	140 J	5700	330 U	150 J	4800	1100	150 J	330 U	1200	220 J
Benzo(b)fluoranthene	ug/kg	230 J	280 J	9500	330 U	320 J	7800	2900	230 J	150 J	2500	630 J
Benzo(g,h,i)perylene	ug/kg	150 J	330 U	4700	330 U	250 J	3600	910	170 J	330 U	990	310 J
Benzo(k)fluoranthene	ug/kg	430 J	330 U	6400	330 U	330 U	5500	330 U	300 J	330 U	400 J	330 U
bis(2-Ethylhexyl)phthalate	ug/kg	330 U	330 U	360 J	330 U	330 U	330 U	330 U	330 U	330 U	330 U	330 U
Butyl benzylphthalate	ug/kg	330 U	330 U	330 U	330 U	330 U	330 U	950	330 U	330 U	96 J	330 U
Chrysene	ug/kg	380 J	150 J	5700 J	330 U	300 J	6400 J	1100 J	180 J	330 U	330 U	610 J
Dibenz(a,h)anthracene	ug/kg	330 U	330 U	1200	330 U	330 U	1600	230 J	330 U	330 U	110 J	330 U
Dibenzofuran	ug/kg	370 J	330 U	830 J	330 U	290 J	780 J	200 J	330 U	330 U	330 U	330 U
Di-n-butylphthalate	ug/kg	330 U	330 U	330 U	330 U	330 U	330 U	110 J	330 U	330 U	330 U	330 U
Fluoranthene	ug/kg	680 J	140 J	12000	330 U	370 J	21000 D	2800	360 J	210 J	2500	980 J
Fluorene	ug/kg	330 U	330 U	1500	330 U	330 U	1200	82 J	330 U	330 U	120 J	330 U
Indeno(1,2,3-cd)pyrene	ug/kg	96 J	330 U	5000	330 U	150 J	4100	910	160 J	330 U	970	270 J
Naphthalene	ug/kg	1100	150	290 J	330 U	500 J	260 J	450 J	330 U	330 U	330 U	150 J
N-Nitrosodiphenylamine	ug/kg	330 U	330 U	450 J	330 U	330 U	330 U	330 U	330 U	330 U	330 U	330 U
Phenanthrene	ug/kg	850 J	200 J	16000 D	330 U	980	14000	1500	170 J	210 J	1800	540 J
Pyrene	ug/kg	580 J	150 J	8100	330 U	300 J	13000	1900	290 J	180 J	3400	710 J
TIC Semi-Volatiles												
1-Methylnaphthalene A	ug/kg	1000 J	U	U	U	1000 J	U	700 J	U	U	U	U
5H-Indeno(1,2-b)pyridine A	ug/kg	U	U	U	U	U	700 J	U	U	U	U	U
7H-Benz(d,e)anthracen-7-one A	ug/kg	U	U	U	U	U	3000 J	U	U	U	U	U
Benzo(j)fluoranthene A	ug/kg	U	U	3000 J	U	U	U	1000 J	U	U	800 J	U
Metals												
Aluminum	mg/kg	5730	3800	4740	3360	1990	4620	2970	5350	11100	10600	8460
Antimony	mg/kg	2.4 U	2.4 U	31.6	2.4 U	2.4 U	2.4 U	13.2 B	2.4 U	2.1 B	2.4 U	18.2 B
Arsenic	mg/kg	23.9	6.8	8.3	12.6	10.3	11.1	8.9	11.6	69.3	8.1	20.1
Barium	mg/kg	991	23.28	157	117	81	167	130	150	190	120	265
Beryllium	mg/kg	0.72 B	1 U	0.7 B	1.7	0.47 B	2	0.72 B	1.4 B	5.5	0.35 B	2.5
Cadmium	mg/kg	1.3	1 U	14	1 U	1 B	1 U	5.9	8.6	1 U	1 U	8.4
Calcium	mg/kg	33800	13300	4790	1260	1710	2650	4460	4810	10000	83700	34900
Chromium Total	mg/kg	18.5	16.9	91.7	6.3	11	8.6	20.6	43	23.2	27.6	30.4
Cobalt	mg/kg	3.7 B	10 U	5.6 B	8.8 B	5 B	8.2 B	5.2 B	6.2 B	22.1	4.7 B	10.9 B
Copper	mg/kg	66.8	48.9 EJ	2220 EJ	56.7 EJ	74.1 EJ	47.4 EJ	316 EJ	2200 EJ	76.6 EJ	37.6 EJ	796 EJ
Iron	mg/kg	15900 EJ	18000	77000	2840	4230	5630	14800	48300	11100	16300	25500
Lead	mg/kg	64.1	43	3300	10.4	59.3	15.9	474	1590	49.7	94.8	811
Magnesium	mg/kg	6270	7790	2660	294 B	439 B	537 B	2580	2230	3720	28000	15500
Manganese	mg/kg	309	344	437	7.2	55.2	27	130	272	162	446	294

TABLE 2.3

SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES - EEI (1990)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*S1(EPA)*	*S2(EPA)*	*S3(EPA)*	*S4(EPA)*	*S5(EPA)*	*S6(EPA)*	*S7(EPA)*	*S8(EPA)*	*S9(EPA)*	*S10(EPA)*	*S11(EPA)*
Sample ID:		*S1*	*S2*	*S3*	*S4*	*S5*	*S6*	*S7*	*S8*	*S9*	*S10*	*S11*
Sample Date:		*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*	*10/23/1990*
Sample Depth:		*1-2 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*1-2 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS*	*0-1 ft BGS Background*	*0-1 ft BGS*
Parameter	*Units*											
Mercury	mg/kg	0.008 U	0.008 U	0.31	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.3	0.008 U	0.008 U
Nickel	mg/kg	28.9	13.9	262	13.6	17.2	17.2	94.7	402	56.6	23.1	65.5
Potassium	mg/kg	729 B	308 B	569 B	364 B	329 B	429 B	232 B	1030 B	1630 B	1190 B	915 B
Selenium	mg/kg	2.2	1.2 BWJ	0.91 B	1.6	2.2	1.7	2.4	1.1 BWJ	4.6	2.6	3.7
Silver	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.1 B	2 U
Sodium	mg/kg	157 B	123 B	114 B	118 B	43.7 B	81 B	64.4 B	338 B	272 B	136 B	239 B
Thallium	mg/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 B	2 U	0.73 B
Vanadium	mg/kg	18.2	7.3 B	33.9	27.9	11.5 B	28.1	16	27.4	69.6	24.3	35.5
Zinc	mg/kg	112	550	2350	9.2	57.6	14.4	2210	1490	75.1	126	480
PCBs												
Aroclor-1248 (PCB-1248)	ug/kg	360 X	4200 X	80 U	80 U	540 X	80 U	80 U	80 U	80 U	1400 X	80 U
Aroclor-1260 (PCB-1260)	ug/kg	300 JX	2800 X	580 JX	160 U	110 JX	160 U	1400 X	160 U	160 U	410 X	460 JX

Notes:
B - Value is real, but is above DL and below CRDL.
D - Compounds at secondary dilution factor.
E - Estimated or not reported due to interference.
J - Value is above CRDL and is an estimated value because of a QC protocol.
U - Compound was analyzed for but not detected.

W - Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.

X - Denotes manually entered data. This always occurs on multi-component quantitations and sometimes occurs on individual pesticides when the analyst had to correct the integration of a peak.

TABLE 2.4

SUMMARY OF FID/PID FIELD SCREENING OF SOIL GAS SAMPLES - PSARA (1996)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

				Parameter:	*Petroleum Products*	
				Units:	*Total Hydrocarbons - FID* *ppmv*	*Total Hydrocarbons - PID* *ppmv*
Sample Location	*Sample ID*	*Sample Date*	*Sample Depth*			
SD001	SD 001	2/19/1996	14-16 ft BGS		29	-
SD001	SD 001	2/19/1996	16-18 ft BGS		160	-
SD001	SD 001	2/19/1996	18-20 ft BGS		300	-
SD001	SD 001	2/19/1996	20-22 ft BGS		18	-
SD002	SD 002	2/19/1996	0-2 ft BGS		0.0	-
SD002	SD 002	2/19/1996	2-4 ft BGS		0.2	-
SD002	SD 002	2/19/1996	4-6 ft BGS		0.0	-
SD002	SD 002	2/19/1996	6-8 ft BGS		0.0	-
SD002	SD 002	2/19/1996	8-10 ft BGS		0.0	-
SD002	SD 002	2/19/1996	10-12 ft BGS		0.0	-
SD002	SD 002	2/19/1996	12-14 ft BGS		6.8	-
SD002	SD 002	2/19/1996	14-16 ft BGS		11	-
SD002	SD 002	2/19/1996	16-18 ft BGS		6.6	-
SD002	SD 002	2/19/1996	18-20 ft BGS		60	-
SD002	SD 002	2/19/1996	20-22 ft BGS		400	-
SD002	SD 002	2/19/1996	22-24 ft BGS		180	-
SD002	SD 002	2/19/1996	24-26 ft BGS		160	-
SD003	SD 003	2/19/1996	0-2 ft BGS		8.4	2.8
SD003	SD 003	2/19/1996	2-4 ft BGS		540	5.2
SD003	SD 003	2/19/1996	4-6 ft BGS		22	16.8
SD004	SD 004	2/19/1996	0-2 ft BGS		6.0	5.1
SD004	SD 004	2/19/1996	2-4 ft BGS		1.4	3.8
SD004	SD 004	2/19/1996	4-6 ft BGS		2.2	5.0
SD004	SD 004	2/19/1996	6-8 ft BGS		2.1	4.8
SD004	SD 004	2/19/1996	8-10 ft BGS		5.8	4.8
SD004	SD 004	2/19/1996	10-12 ft BGS		18	40
SD004A	SD 004A	2/19/1996	0-2 ft BGS		2.8	4.2
SD004A	SD 004A	2/19/1996	2-4 ft BGS		1.8	3.0
SD004A	SD 004A	2/19/1996	4-6 ft BGS		4.0	3.2
SD004A	SD 004A	2/19/1996	6-8 ft BGS		3.8	4.2
SD004A	SD 004A	2/19/1996	8-10 ft BGS		3.0	4.0
SD004A	SD 004A	2/19/1996	10-12 ft BGS		7.2	6.8
SD004A	SD 004A	2/19/1996	14-16 ft BGS		4.2	3.8
SD004A	SD 004A	2/19/1996	16-18 ft BGS		24	8.0
SD004A	SD 004A	2/19/1996	18-20 ft BGS		2.8	4.0
SD004A	SD 004A	2/19/1996	20-22 ft BGS		22	7.5
SD004A	SD 004A	2/19/1996	22-24 ft BGS		5.2	5.8
SD004A	SD 004A	2/19/1996	24-26 ft BGS		8.6	5.4
SD004A	SD 004A	2/19/1996	26-28 ft BGS		4.8	4.6
SD005	SD 005	2/19/1996	0-2 ft BGS		3.6	1.2
SD005	SD 005	2/19/1996	2-4 ft BGS		4.0	1.6
SD005	SD 005	2/19/1996	4-6 ft BGS		3.2	1.6
SD005	SD 005	2/19/1996	6-8 ft BGS		2.6	2.0
SD005	SD 005	2/19/1996	8-10 ft BGS		2.8	1.0
SD005	SD 005	2/19/1996	10-12 ft BGS		3.0	1.2
SD005	SD 005	2/19/1996	14-16 ft BGS		14	10.2
SD005	SD 005	2/19/1996	16-18 ft BGS		10	16
SD005	SD 005	2/19/1996	18-20 ft BGS		12	6.2
SD005	SD 005	2/19/1996	20-22 ft BGS		7.8	3.6
SD005	SD 005	2/19/1996	22-24 ft BGS		24	5.0
SD005	SD 005	2/19/1996	24-26 ft BGS		10	3.2
SD006	SD 006	2/19/1996	0-2 ft BGS		12	4
SD006	SD 006	2/19/1996	2-4 ft BGS		500	4
SD006A	SD 006A	2/19/1996	0-2 ft BGS		1	3
SD006A	SD 006A	2/19/1996	2-4 ft BGS		1000	6
SD006A	SD 006A	2/19/1996	4-6 ft BGS		1000	11
SD006B	SD 006B	2/19/1996	0-2 ft BGS		6	12
SD007	SD 007	2/19/1996	0-2 ft BGS		5	3
SD007	SD 007	2/19/1996	2-4 ft BGS		5	1
SD007	SD 007	2/19/1996	4-6 ft BGS		80	4
SD007	SD 007	2/19/1996	6-8 ft BGS		20	1
SD007	SD 007	2/19/1996	8-10 ft BGS		100	3
SD007	SD 007	2/19/1996	10-12 ft BGS		300	2
SD007	SD 007	2/19/1996	12-14 ft BGS		20	1

Notes:
- - Not applicable.

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-102*	*MW-102*	*MW-102*	*MW-102*	*MW-102*
Sample ID:		*96-DV-03-S23*	*96-DV-03-D23*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*96-DV-03-S25*	*MW102*	*MW102*	*MW102*	*MW102*
Sample Date:		*7/9/1996*	*7/9/1996*	*1/6/1998*	*5/28/1998*	*2/19/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/15/2004*	*8/4/2005*	*7/9/1996*	*1/6/1998*	*5/28/1998*	*2/17/1999*	*11/11/1999*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*OEPA*	*OEPA Duplicate*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*OEPA*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	*Units*																	
Volatiles																		
1,1,1-Trichloroethane	mg/L	0.01 U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U	U	U	U	U
1,1,2,2-Tetrachloroethane	mg/L	0.01 U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U	U	U	U	U
1,1,2-Trichloroethane	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
1,1-Dichloroethane	mg/L	0.013	0.013	0.016	20	0.014	U	0.032	0.031	0.039	0.0087	0.0096	0.0062	0.01 U	U	U	U	U
1,1-Dichloroethene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.01 U	0.01 U	U	U	U	0.034	U	U	U	U	U	U	0.01 U	U	U	U	U
1,2-Dichloroethene (total)	mg/L	0.15	0.14	0.18	0.27	0.2	U	0.41	0.4	0.48	0.041	0.092	0.057	0.01 U	U	U	U	U
1,2-Dichloropropane	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2-Hexanone	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Acetone	mg/L	0.03	0.029	U	U	U	U	U	U	U	U	U	U	0.01 U	U	U	U	U
Benzene	mg/L	0.01 U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U	U	U	U	U
Bromodichloromethane	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Bromoform	mg/L	0.01 U	0.01 U	U	0.0006 J	U	U	U	U	U	U	U	U	0.01 U	U	U	U	U
Bromomethane (Methyl Bromide)	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Carbon disulfide	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Carbon tetrachloride	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Chlorobenzene	mg/L	0.01 U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U	U	U	U	U
Chloroethane	mg/L	0.002 J	0.01 U	U	U	U	U	U	U	U	U	U	U	0.022	U	U	U	U
Chloroform (Trichloromethane)	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Chloromethane (Methyl Chloride)	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
cis-1,2-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Dibromochloromethane	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Ethylbenzene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
m&p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.01 U	0.004 J	U	U	0.0014 JB	0.005 B	U	U	U	U	U	U	0.006 J	U	U	0.0033 J	U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	0.01 U	0.01 U	U	0.00078 J	U	U	U	U	U	U	U	U	0.01 U	U	U	U	U
Tetrachloroethene	mg/L	0.01 U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U	U	U	0.0016 J	U
Toluene	mg/L	0.01 U	0.001 J	U	0.0072 J	0.0051 J	U	U	U	U	U	U	U	0.015	U	0.0069	0.0009 J	U
trans-1,3-Dichloropropene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Trichloroethene	mg/L	0.01 U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U	U	0.00066 J	0.0007 J	U
Vinyl chloride	mg/L	0.004 J	0.004 J	0.032	0.088	0.048	U	0.15	0.14	0.18	0.014	0.02	0.012	0.01 U	U	U	U	U
Xylene (total)	mg/L	0.01 U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.004 J	U	U	U	U
Semi-Volatiles																		
1,2,4-Trichlorobenzene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
1,3-Dichlorobenzene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
1,4-Dichlorobenzene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2,4,5-Trichlorophenol	mg/L	0.025 U	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U	-	-	-	-
2,4,6-Trichlorophenol	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2,4-Dichlorophenol	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2,4-Dimethylphenol	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2,4-Dinitrophenol	mg/L	0.025 U	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U	-	-	-	-
2,4-Dinitrotoluene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2,6-Dinitrotoluene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2-Chloronaphthalene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2-Chlorophenol	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2-Methylnaphthalene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2-Methylphenol	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
2-Nitroaniline	mg/L	0.025 U	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U	-	-	-	-
2-Nitrophenol	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
3-Nitroaniline	mg/L	0.025 U	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	0.025 U	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
4-Chloro-3-methylphenol	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
4-Chloroaniline	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
4-Methylphenol	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
4-Nitroaniline	mg/L	0.025 U	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-102*	*MW-102*	*MW-102*	*MW-102*	*MW-102*
Sample ID:		*96-DV-03-S23*	*96-DV-03-D23*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*96-DV-03-S25*	*MW102*	*MW102*	*MW102*	*MW102*
Sample Date:		*7/9/1996*	*7/9/1996*	*1/6/1998*	*5/28/1998*	*2/19/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/15/2004*	*8/4/2005*	*7/9/1996*	*1/6/1998*	*5/28/1998*	*2/17/1999*	*11/13/1999*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*OEPA*	*OEPA Duplicate*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*OEPA*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	*Units*																	
4-Nitrophenol	mg/L	0 025 U	0 025 U	-	-	-	-	-	-	-	-	-	-	0 025 U	-	-	-	-
Acenaphthene	mg/L	0 01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Acenaphthylene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Anthracene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Benzo(a)anthracene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Benzo(a)pyrene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Benzo(b)fluoranthene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Benzo(g,h,i)perylene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Benzo(k)fluoranthene	mg/L	0 01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	0 002 J	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Butyl benzylphthalate	mg/L	0.01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Chrysene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Dibenz(a,h)anthracene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Dibenzofuran	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Diethyl phthalate	mg/L	0 01 JBU	0.01 JBU	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Dimethyl phthalate	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Di-n-butylphthalate	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Di-n-octyl phthalate	mg/L	0 001 J	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Fluoranthene	mg/L	0.01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Fluorene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Hexachlorobenzene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Hexachlorobutadiene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Hexachlorocyclopentadiene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Hexachloroethane	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	0 01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Isophorone	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Naphthalene	mg/L	0.01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Nitrobenzene	mg/L	0.01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0.01 U	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
N-Nitrosodiphenylamine	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Pentachlorophenol	mg/L	0 025 U	0 025 U	-	-	-	-	-	-	-	-	-	-	0.025 U	-	-	-	-
Phenanthrene	mg/L	0 01 U	0 01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Phenol	mg/L	0.13 EB	0.01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Pyrene	mg/L	0.01 U	0.01 U	-	-	-	-	-	-	-	-	-	-	0 01 U	-	-	-	-
Metals																		
Aluminum	mg/L	10	0 361	-	-	-	-	-	-	-	-	-	-	0.183 B	-	-	-	-
Antimony	mg/L	0 0030 U	0.0030 U	-	-	-	-	-	-	-	-	-	-	0 0030 U	-	-	-	-
Arsenic	mg/L	0 0096 B	0.0040 U	U	U	U	-	-	-	-	-	-	-	0 0040 U	U	U	U	-
Barium	mg/L	0 33	0.347	U	U	0.24	-	-	-	-	-	-	-	0 0844 B	U	U	U	-
Beryllium	mg/L	0 0010 U	0.0010 U	-	-	-	-	-	-	-	-	-	-	0 0010 U	-	-	-	-
Cadmium	mg/L	0 0010 U	0.0010 U	U	U	U	-	-	-	-	-	-	-	0 0010 U	U	U	U	-
Calcium	mg/L	224	81.7	-	-	-	-	-	-	-	-	-	-	87	-	-	-	-
Chromium Total	mg/L	0 0174	0 0012 B	0 012	U	0.026	-	-	-	-	-	-	-	0.0010 U	0.069	U	0 024	-
Cobalt	mg/L	0 0123 B	0 0020 B	-	-	-	-	-	-	-	-	-	-	0.0010 U	-	-	-	-
Copper	mg/L	0 0308	0 0049 B	-	-	-	-	-	-	-	-	-	-	0 0031 B	-	-	-	-
Cyanide (total)	mg/L	0 0030 U	0 0030 U	-	-	-	-	-	-	-	-	-	-	0 0030 U	-	-	-	-
Iron	mg/L	20 6	0.72	-	-	-	-	-	-	-	-	-	-	0.332	-	-	-	-
Iron (Dissolved)	mg/L	-	-	-	1	1.6	-	-	-	-	-	-	-	-	-	0.32	0 64	-
Lead	mg/L	0.0215	0 0087	U	U	U	-	-	-	-	-	-	-	0 0011 B	U	U	U	-
Magnesium	mg/L	76 8	12 4	-	-	-	-	-	-	-	-	-	-	25	-	-	-	-
Manganese	mg/L	1	0.0867	-	-	-	-	-	-	-	-	-	-	0.107	-	-	-	-
Mercury	mg/L	0.00020 U	0.00020 U	U	U	-	-	-	-	-	-	-	-	0.00020 U	U	U	-	-
Nickel	mg/L	0.0297 B	0 0142 B	-	-	-	-	-	-	-	-	-	-	0.0022 B	-	-	-	-
Potassium	mg/L	39.6	114	-	-	-	-	-	-	-	-	-	-	3.39 B	-	-	-	-
Selenium	mg/L	0.0040 U	0 0040 U	U	U	-	-	-	-	-	-	-	-	0 0040 U	U	U	-	-
Silver	mg/L	0 0010 U	0 0010 U	U	U	-	-	-	-	-	-	-	-	0 0010 U	U	U	-	-
Sodium	mg/L	46.2	98.7	-	-	-	-	-	-	-	-	-	-	12.4	-	-	-	-
Thallium	mg/L	0.0044 B	0.0040 U	-	-	-	-	-	-	-	-	-	-	0 0040 U	-	-	-	-
Vanadium	mg/L	0.0209 B	0 0010 U	-	-	-	-	-	-	-	-	-	-	0 0010 U	-	-	-	-
Zinc	mg/L	0.0777	0.01 B	-	-	-	-	-	-	-	-	-	-	0 0095 B	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-101A*	*MW-102*	*MW-102*	*MW-102*	*MW-102*	*MW-102*
Sample ID:		*96-DV-03-523*	*96-DV-03-D23*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*MW101A*	*96-DV-03-525*	*MW102*	*MW102*	*MW102*	*MW102*
Sample Date:		*7/9/1996*	*7/9/1996*	*1/6/1998*	*5/28/1998*	*2/19/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/15/2004*	*8/4/2005*	*7/9/1996*	*1/6/1998*	*5/28/1998*	*2/17/1999*	*11/11/1999*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By		*OEPA*	*OEPA Duplicate*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*OEPA*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	*Units*																	
PCBs																		
Aroclor-1016 (PCB-1016)	mg/L	0.0010 U	0.0010 U	-	-	-	-	-	-	-	-	-	-	0.0010 U	-	-	-	-
Aroclor-1221 (PCB-1221)	mg/L	0.0020 U	0.0020 U	-	-	-	-	-	-	-	-	-	-	0.0020 U	-	-	-	-
Aroclor-1232 (PCB-1232)	mg/L	0.0010 U	0.0010 U	-	-	-	-	-	-	-	-	-	-	0.0010 U	-	-	-	-
Aroclor-1242 (PCB-1242)	mg/L	0.0010 U	0.0010 U	-	-	-	-	-	-	-	-	-	-	0.0010 U	-	-	-	-
Aroclor-1248 (PCB-1248)	mg/L	0.0010 U	0.0010 U	-	-	-	-	-	-	-	-	-	-	0.0010 U	-	-	-	-
Aroclor-1254 (PCB-1254)	mg/L	0.0010 U	0.0010 U	-	-	-	-	-	-	-	-	-	-	0.0010 U	-	-	-	-
Aroclor-1260 (PCB-1260)	mg/L	0.0010 U	0.0010 U	-	-	-	-	-	-	-	-	-	-	0.0010 U	-	-	-	-
Pesticides																		
4,4'-DDD	mg/L	0.00010 U	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U	-	-	-	-
4,4'-DDE	mg/L	0.00010 U	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U	-	-	-	-
4,4'-DDT	mg/L	0.00010 U	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U	-	-	-	-
Aldrin	mg/L	0.000050 U	0.000050 U	-	-	-	-	-	-	-	-	-	-	0.000050 U	-	-	-	-
alpha-BHC	mg/L	0.000050 U	0.000050 U	-	-	-	-	-	-	-	-	-	-	0.000050 U	-	-	-	-
alpha-Chlordane	mg/L	0.000050 U	0.000050 U	-	-	-	-	-	-	-	-	-	-	0.000050 U	-	-	-	-
beta-BHC	mg/L	0.000050 U	0.000050 U	-	-	-	-	-	-	-	-	-	-	0.000050 U	-	-	-	-
delta-BHC	mg/L	0.000050 U	0.000050 U	-	-	-	-	-	-	-	-	-	-	0.000050 U	-	-	-	-
Dieldrin	mg/L	0.00010 U	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U	-	-	-	-
Endosulfan I	mg/L	0.000050 U	0.000050 U	-	-	-	-	-	-	-	-	-	-	0.000050 U	-	-	-	-
Endosulfan II	mg/L	0.00010 U	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U	-	-	-	-
Endosulfan sulfate	mg/L	0.00010 U	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U	-	-	-	-
Endrin	mg/L	0.00010 U	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U	-	-	-	-
Endrin aldehyde	mg/L	0.00010 U	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U	-	-	-	-
Endrin ketone	mg/L	0.00010 U	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U	-	-	-	-
gamma-BHC (Lindane)	mg/L	0.000050 U	0.000050 U	-	-	-	-	-	-	-	-	-	-	0.000050 U	-	-	-	-
gamma-Chlordane	mg/L	0.000050 U	0.000050 U	-	-	-	-	-	-	-	-	-	-	0.000050 U	-	-	-	-
Heptachlor	mg/L	0.000051 PJ	0.0000082 PJ	-	-	-	-	-	-	-	-	-	-	0.0000092 PJ	-	-	-	-
Heptachlor epoxide	mg/L	0.000050 U	0.000050 U	-	-	-	-	-	-	-	-	-	-	0.000050 U	-	-	-	-
Methoxychlor	mg/L	0.00050 U	0.00050 U	-	-	-	-	-	-	-	-	-	-	0.00050 U	-	-	-	-
Toxaphene	mg/L	0.0050 U	0.0050 U	-	-	-	-	-	-	-	-	-	-	0.0050 U	-	-	-	-
Gases																		
Ethane	mg/L	-	-	-	5.6	0.0051	-	-	-	-	-	-	-	-	-	U	U	-
Ethene	mg/L	-	-	-	4	0.0067	-	-	-	-	-	-	-	-	-	U	U	-
Methane	mg/L	-	-	-	0.27 E/0.83 D	0.29 E/0.69 D	-	-	-	-	-	-	-	-	-	U	0.0007	-
General Chemistry																		
Alkalinity, Total (As CaCO3)	mg/L	-	-	-	530	450	-	-	-	-	-	-	-	-	-	350	280	-
Ammonia-n	mg/L	-	-	-	0.9	0.6	-	-	-	-	-	-	-	-	-	U	U	-
Chloride	mg/L	-	-	-	16.2	14.7	-	-	-	-	-	-	-	-	-	27.1	40.8	-
Nitrate (as N)	mg/L	-	-	-	U	U	-	-	-	-	-	-	-	-	-	4.3	7.1	-
Sulfate	mg/L	-	-	-	31.1	30.2	-	-	-	-	-	-	-	-	-	44.8	50.1	-
Total Organic Carbon (TOC)	mg/L	-	-	-	3	4	-	-	-	-	-	-	-	-	-	U	1	-

Notes:
B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).
B - Compound is found in the associated blank as well as in the sample (Organics)
D - Result was obtained from the analysis of a dilution.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.
- - Not applicable.

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-102*	*MW-102*	*MW-102*	*MW-102*	*MW-102*	*MW-102*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-104*
Sample ID:		*MW102*	*MW102*	*MW102*	*MW102*	*MW102*	*MW102*	*96-DV-03-524*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*96-DV-03-522*
Sample Date:		*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*7/9/1996*	*1/6/1998*	*5/28/1998*	*2/17/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*7/9/1996*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*OEPA*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*OEPA Background*
Parameter	*Units*																		
Volatiles																			
1,1,1-Trichloroethane	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
1,1,2,2-Tetrachloroethane	mg/L	U	U	U	U	U	U	0.01 U	U	0.001 J	U	U	U	U.	U	U	U	U	0.01 U
1,1,2-Trichloroethane	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
1,1-Dichloroethane	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
1,2-Dichloroethene (total)	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
1,2-Dichloropropane	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2-Hexanone	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Acetone	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
Benzene	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
Bromodichloromethane	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Bromoform	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
Bromomethane (Methyl Bromide)	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Carbon disulfide	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Carbon tetrachloride	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Chlorobenzene	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
Chloroethane	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Chloromethane (Methyl Chloride)	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
cis-1,2-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Dibromochloromethane	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Ethylbenzene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
m&p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	U	U	U	U	U	U	0.01 U	U	U	0.0022 J	U	U	U	U	U	U	U	0.01 U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
Tetrachloroethene	mg/L	U	U	U	U	U	U	0.01 U	U	U	0.0005 J	U	U	U	U	U	U	U	0.01 U
Toluene	mg/L	U	U	U	U	U	U	0.01 U	0.00036 J	0.0067	0.0007 J	U	U	U	U	U	U	U	0.01 U
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Trichloroethene	mg/L	U	U	U	U	U	U	0.01 U	0.0032	0.0051	0.004	0.008	0.005	U	U	U	U	U	0.01 U
Vinyl chloride	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
Xylene (total)	mg/L	U	U	U	U	U	U	0.01 U	U	U	U	U	U	U	U	U	U	U	0.01 U
Semi-Volatiles																			
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2-Chlorophenol	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2-Methylphenol	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
2-Nitroaniline	mg/L	-	-	-	-	-	-	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U
2-Nitrophenol	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
3-Nitroaniline	mg/L	-	-	-	-	-	-	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
4-Chloroaniline	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
4-Methylphenol	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
4-Nitroaniline	mg/L	-	-	-	-	-	-	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-102*	*MW-102*	*MW-102*	*MW-102*	*MW-102*	*MW-102*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-104*
Sample ID:		*MW102*	*MW102*	*MW102*	*MW102*	*MW102*	*MW102*	*96-DV-03-S24*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*96-DV-03-S22*
Sample Date:		*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*7/9/1996*	*1/6/1998*	*5/28/1998*	*2/17/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*7/9/1996*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*OEPA*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*OEPA Background*
Parameter	*Units*																		
4-Nitrophenol	mg/L	-	-	-	-	-	-	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U
Acenaphthene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Acenaphthylene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Anthracene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	0.002 J	-	-	-	-	-	-	-	-	-	-	0.001 J
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Chrysene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Dibenzofuran	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Diethyl phthalate	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 JBU
Dimethyl phthalate	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.003 J
Fluoranthene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Fluorene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Hexachlorobenzene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Hexachloroethane	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Isophorone	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Naphthalene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Nitrobenzene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Pentachlorophenol	mg/L	-	-	-	-	-	-	0.025 U	-	-	-	-	-	-	-	-	-	-	0.025 U
Phenanthrene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Phenol	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Pyrene	mg/L	-	-	-	-	-	-	0.01 U	-	-	-	-	-	-	-	-	-	-	0.01 U
Metals																			
Aluminum	mg/L	-	-	-	-	-	-	0.0984 B	-	-	-	-	-	-	-	-	-	-	5.73
Antimony	mg/L	-	-	-	-	-	-	0.0030 U	-	-	-	-	-	-	-	-	-	-	0.0030 U
Arsenic	mg/L	-	-	-	-	-	-	0.0040 U	U	U	U	-	-	-	-	-	-	-	0.547
Barium	mg/L	-	-	-	-	-	-	0.0925 B	U	U	U	-	-	-	-	-	-	-	2.53
Beryllium	mg/L	-	-	-	-	-	-	0.0010 U	-	-	-	-	-	-	-	-	-	-	0.0010 U
Cadmium	mg/L	-	-	-	-	-	-	0.0010 U	U	U	U	-	-	-	-	-	-	-	0.0010 U
Calcium	mg/L	-	-	-	-	-	-	78.8	-	-	-	-	-	-	-	-	-	-	190
Chromium Total	mg/L	-	-	-	-	-	-	0.0076 B	0.017	0.011	0.055	-	-	-	-	-	-	-	0.0173
Cobalt	mg/L	-	-	-	-	-	-	0.0010 U	-	-	-	-	-	-	-	-	-	-	0.0246 B
Copper	mg/L	-	-	-	-	-	-	0.0032 B	-	-	-	-	-	-	-	-	-	-	0.0278
Cyanide (total)	mg/L	-	-	-	-	-	-	0.0030 U	-	-	-	-	-	-	-	-	-	-	0.0092 B
Iron	mg/L	-	-	-	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	38
Iron (Dissolved)	mg/L	-	-	-	-	-	-	-	-	1	1.9	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	0.0028 B	U	U	U	-	-	-	-	-	-	-	0.0134
Magnesium	mg/L	-	-	-	-	-	-	23.1	-	-	-	-	-	-	-	-	-	-	75.4
Manganese	mg/L	-	-	-	-	-	-	0.0463	-	-	-	-	-	-	-	-	-	-	1
Mercury	mg/L	-	-	-	-	-	-	0.00020 U	U	U	-	-	-	-	-	-	-	-	0.00020 U
Nickel	mg/L	-	-	-	-	-	-	0.0011 B	-	-	-	-	-	-	-	-	-	-	0.0173 B
Potassium	mg/L	-	-	-	-	-	-	2.72 B	-	-	-	-	-	-	-	-	-	-	9.57
Selenium	mg/L	-	-	-	-	-	-	0.0040 U	U	U	-	-	-	-	-	-	-	-	0.0083
Silver	mg/L	-	-	-	-	-	-	0.0010 U	U	U	-	-	-	-	-	-	-	-	0.0010 U
Sodium	mg/L	-	-	-	-	-	-	13.4	-	-	-	-	-	-	-	-	-	-	81.8
Thallium	mg/L	-	-	-	-	-	-	0.0040 U	-	-	-	-	-	-	-	-	-	-	0.0046 B
Vanadium	mg/L	-	-	-	-	-	-	0.0010 U	-	-	-	-	-	-	-	-	-	-	0.0148 B
Zinc	mg/L	-	-	-	-	-	-	0.0072 B	-	-	-	-	-	-	-	-	-	-	0.0697

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-104
Sample ID:		MW102	MW102	MW102	MW102	MW102	MW102	96-DV-03-S24	MW103	MW103	MW103	MW103	MW103	MW103	MW103	MW103	MW103	MW103	96-DV-03-S22
Sample Date:		5/10/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	8/2/2005	7/9/1996	1/6/1998	5/28/1998	2/17/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	8/2/2005	7/9/1996
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		PFI	PFI	PFI	PFI	PFI	PFI	OEPA	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	OEPA Background
Parameter	**Units**																		
PCBs																			
Aroclor-1016 (PCB-1016)	mg/L	-	-	-	-	-	-	0 0010 U	-	-	-	-	-	-	-	-	-	-	0 0010 U
Aroclor-1221 (PCB-1221)	mg/L	-	-	-	-	-	-	0 0020 U	-	-	-	-	-	-	-	-	-	-	0 0020 U
Aroclor-1232 (PCB-1232)	mg/L	-	-	-	-	-	-	0 0010 U	-	-	-	-	-	-	-	-	-	-	0 0010 U
Aroclor-1242 (PCB-1242)	mg/L	-	-	-	-	-	-	0 0010 U	-	-	-	-	-	-	-	-	-	-	0 0010 U
Aroclor-1248 (PCB-1248)	mg/L	-	-	-	-	-	-	0 0010 U	-	-	-	-	-	-	-	-	-	-	0 0010 U
Aroclor-1254 (PCB-1254)	mg/L	-	-	-	-	-	-	0 0010 U	-	-	-	-	-	-	-	-	-	-	0 0010 U
Aroclor-1260 (PCB-1260)	mg/L	-	-	-	-	-	-	0 0010 U	-	-	-	-	-	-	-	-	-	-	0 0010 U
Pesticides																			
4,4'-DDD	mg/L	-	-	-	-	-	-	0 00010 U	-	-	-	-	-	-	-	-	-	-	0 00010 U
4,4'-DDE	mg/L	-	-	-	-	-	-	0 00010 U	-	-	-	-	-	-	-	-	-	-	0 00010 U
4,4'-DDT	mg/L	-	-	-	-	-	-	0.00010 U	-	-	-	-	-	-	-	-	-	-	0 00010 U
Aldrin	mg/L	-	-	-	-	-	-	0 000050 U	-	-	-	-	-	-	-	-	-	-	0 000050 U
alpha-BHC	mg/L	-	-	-	-	-	-	0 000050 U	-	-	-	-	-	-	-	-	-	-	0 000050 U
alpha-Chlordane	mg/L	-	-	-	-	-	-	0 000050 U	-	-	-	-	-	-	-	-	-	-	0 000050 U
beta-BHC	mg/L	-	-	-	-	-	-	0.000050 U	-	-	-	-	-	-	-	-	-	-	0 000050 U
delta-BHC	mg/L	-	-	-	-	-	-	0.000050 U	-	-	-	-	-	-	-	-	-	-	0 000050 U
Dieldrin	mg/L	-	-	-	-	-	-	0.00010 U	-	-	-	-	-	-	-	-	-	-	0 00010 U
Endosulfan I	mg/L	-	-	-	-	-	-	0.000050 U	-	-	-	-	-	-	-	-	-	-	0 000050 U
Endosulfan II	mg/L	-	-	-	-	-	-	0 00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U
Endosulfan sulfate	mg/L	-	-	-	-	-	-	0.00010 U	-	-	-	-	-	-	-	-	-	-	0 00010 U
Endrin	mg/L	-	-	-	-	-	-	0.00010 U	-	-	-	-	-	-	-	-	-	-	0.00010 U
Endrin aldehyde	mg/L	-	-	-	-	-	-	0.00010 U	-	-	-	-	-	-	-	-	-	-	0 00010 U
Endrin ketone	mg/L	-	-	-	-	-	-	0 00010 U	-	-	-	-	-	-	-	-	-	-	0 00010 U
gamma-BHC (Lindane)	mg/L	-	-	-	-	-	-	0 000050 U	-	-	-	-	-	-	-	-	-	-	0 000050 U
gamma-Chlordane	mg/L	-	-	-	-	-	-	0 000050 U	-	-	-	-	-	-	-	-	-	-	0 000050 U
Heptachlor	mg/L	-	-	-	-	-	-	0 0000095 PJ	-	-	-	-	-	-	-	-	-	-	0 000050 U
Heptachlor epoxide	mg/L	-	-	-	-	-	-	0 000050 U	-	-	-	-	-	-	-	-	-	-	0 000050 U
Methoxychlor	mg/L	-	-	-	-	-	-	0 00050 U	-	-	-	-	-	-	-	-	-	-	0.00050 U
Toxaphene	mg/L	-	-	-	-	-	-	0 0050 U	-	-	-	-	-	-	-	-	-	-	0 0050 U
Gases																			
Ethane	mg/L	-	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	-
Ethene	mg/L	-	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	-
Methane	mg/L	-	-	-	-	-	-	-	-	U	0.0006	-	-	-	-	-	-	-	-
General Chemistry																			
Alkalinity, Total (As CaCO3)	mg/L	-	-	-	-	-	-	-	-	290	220	-	-	-	-	-	-	-	-
Ammonia-n	mg/L	-	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	32	32.7	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	4 6	8.9	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	41.9	45.4	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	U	2	-	-	-	-	-	-	-	-

Notes.
B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics)
B - Compound is found in the associated blank as well as in the sample (Organics)
D - Result was obtained from the analysis of a dilution.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.
- - Not applicable.

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*
Sample ID:		*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*
Sample Date:		*5/28/1998*	*2/16/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/15/2004*	*8/2/2005*	*5/28/1998*	*2/17/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/15/2004*	*8/3/2005*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	***Units***																		
Volatiles																			
1,1,1-Trichloroethane	mg/L	0 0073	0 006	0 0084	0 0089	0 0069	0 0052	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	U	U	U	U	U	U	U	U	U	0 0026 J	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	mg/L	U	U	U	U	U	U	U	U	U	U	0 003	U	U	U	U	U	U	U
1,2-Dichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane (Methyl Bromide)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	U	0 003 J	U	U	U	U	U	U	U	U	0 003 J	U	U	U	U	U	U	U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	mg/L	0 0035 J	0 002 J	U	U	U	U	U	U	U	0 0083	0 009	U	0 0062	U	U	U	U	U
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0 018	0 017	0 021	0 022	0 021	0 017	0 0059	0 008	0 0057	0 038	0 039	0 039	0 035	0 041	0 031	0 011	0 012	0 0081
Vinyl chloride	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Semi-Volatiles																			
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202
Sample ID:		MW201	MW201	MW201	MW201	MW201	MW201	MW201	MW201	MW201	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202
Sample Date:		5/28/1998	2/16/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/1/2004	10/15/2004	8/2/2005	5/28/1998	2/17/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/2/2004	10/15/2004	8/3/2005
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI
Parameter	Units																		
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																			
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Barium	mg/L	0.2	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	mg/L	U	U	-	-	-	-	-	-	-	U	0.01	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	mg/L	1	0.69	-	-	-	-	-	-	-	1.1	0.84	-	-	-	-	-	-	-
Lead	mg/L	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	U	-	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	U	-	-	-	-	-	-	-	-	0.015	-	-	-	-	-	-	-	-
Silver	mg/L	U	-	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*	*MW-202*
Sample ID:		*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*	*MW202*
Sample Date:		5/28/1998	2/16/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/1/2004	10/15/2004	8/2/2005	5/28/1998	2/17/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/2/2004	10/15/2004	8/3/2005
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI
Parameter	*Units*																		
PCBs																			
Aroclor-1016 (PCB-1016)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pesticides																			
4,4'-DDD	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
beta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toxaphene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gases																			
Ethane	mg/L	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Ethene	mg/L	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Methane	mg/L	0 0014	0 0006	-	-	-	-	-	-	-	0 0005	0 004	-	-	-	-	-	-	-
General Chemistry																			
Alkalinity, Total (As CaCO3)	mg/L	460	310	-	-	-	-	-	-	-	380	270	-	-	-	-	-	-	-
Ammonia-n	mg/L	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Chloride	mg/L	95.1	80 5	-	-	-	-	-	-	-	145	121	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.65	1.1	-	-	-	-	-	-	-	2.1	2.3	-	-	-	-	-	-	-
Sulfate	mg/L	50 2	47	-	-	-	-	-	-	-	72.2	66 5	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	U	1	-	-	-	-	-	-	-	U	2	-	-	-	-	-	-	-

Notes:
B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).
B - Compound is found in the associated blank as well as in the sample (Organics).
D - Result was obtained from the analysis of a dilution.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.
- - Not applicable

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
Sample ID:		MW203	MW203	MW203	MW203	MW203	MW203	MW203	MW203	MW203	MW204	MW204	MW204	MW204	MW204	MW204	MW204	MW204	MW204
Sample Date:		5/28/1998	2/17/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/2/2004	10/14/2004	8/4/2005	5/28/1998	2/17/1999	11/11/1999	5/9/2000	6/6/2001	6/14/2002	7/2/2004	10/14/2004	8/3/2005
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI	PFI
Parameter	**Units**																		
Volatiles																			
1,1,1-Trichloroethane	mg/L	U	U	U*	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	U	0.001 J	0.013	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.005	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	mg/L	U	0.008	0.025	U	U	U	0.014	0.021	0.011	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	mg/L	U	0.0007	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane (Methyl Bromide)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	0.026	0.024	0.019	0.027	0.029	0.029	0.012	0.012	0.0099	U	U	U	U	U	U	U	U	U
Chloroethane	mg/L	U	0.003 J	U	U	U	U	U	U	U	0.0029 J	0.002 J	U	U	U	U	U	U	U
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	U	0.003 J	U	U	U	U	U	U	U	U	0.002 J	0.0058 B	U	U	U	U	U	U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	mg/L	0.0049 J	0.005	0.0084	U	U	U	U	U	U	0.0043 J	0.006	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Vinyl chloride	mg/L	U	0.002 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Semi-Volatiles																			
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*
Sample ID:		*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*
Sample Date:		*5/28/1998*	*2/17/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/4/2005*	*5/28/1998*	*2/17/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	***Units***																		
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																			
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.019	0.027	-	-	-	-	-	-	-	0.033	0.028	-	-	-	-	-	-	-
Barium	mg/L	U	U	-	-	-	-	-	-	-	0.85	0.7	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	mg/L	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	mg/L	2.1	4.2	-	-	-	-	-	-	-	3.1	3.1	-	-	-	-	-	-	-
Lead	mg/L	U	U	-	-	-	-	-	-	-	0.0049	U	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	U	-	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	U	-	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-
Silver	mg/L	U	-	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-203*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*	*MW-204*
Sample ID:		*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW203*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*	*MW204*
Sample Date:		*5/28/1998*	*2/17/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/4/2005*	*5/28/1998*	*2/17/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	***Units***																		
PCBs																			
Aroclor-1016 (PCB-1016)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pesticides																			
4,4'-DDD	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
beta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toxaphene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gases																			
Ethane	mg/L	0 018 D/0 02 E	0 023	-	-	-	-	-	-	-	0 016	0 021	-	-	-	-	-	-	-
Ethene	mg/L	0 00058	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Methane	mg/L	0 28 E/0 91 E	1.5 D/0 33 E	-	-	-	-	-	-	-	5 7 D/0 037 E	0.54 E/2.2 D	-	-	-	-	-	-	-
General Chemistry																			
Alkalinity, Total (As CaCO3)	mg/L	540	430	-	-	-	-	-	-	-	800	470	-	-	-	-	-	-	-
Ammonia-n	mg/L	3 3	2.9	-	-	-	-	-	-	-	5 4	4.4	-	-	-	-	-	-	-
Chloride	mg/L	75 5	67.1	-	-	-	-	-	-	-	56 2	59.2	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Sulfate	mg/L	34 5	33.6	-	-	-	-	-	-	-	1.3	1.5	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	7	11	-	-	-	-	-	-	-	8	9	-	-	-	-	-	-	-

Notes:
B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics)
B - Compound is found in the associated blank as well as in the sample (Organics)
D - Result was obtained from the analysis of a dilution.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.
- - Not applicable.

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-208*	*MW-208*
Sample ID:		*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW208*	*MW208*
Sample Date:		*2/18/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*2/18/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*2/18/1999*	*11/11/1999*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	*Units*																		
Volatiles																			
1,1,1-Trichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.002 J	U
1,2-Dichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane (Methyl Bromide)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	0.0005 J	U	U	U	U	U	U	U	0.003 J	U	U	U	U	U	U	U	0.0008 J	U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	mg/L	0.0006 J	U	U	U	U	U	U	U	0.004 J	U	U	U	U	U	U	U	0.002 J	U
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.002 J	U
Vinyl chloride	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.001 J	U
Xylene (total)	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Semi-Volatiles																			
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-208*	*MW-208*
Sample ID:		*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW208*	*MW208*
Sample Date:		*2/18/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*2/18/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*2/18/1999*	*11/11/1999*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	*Units*																		
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																			
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	U	-	-	-	-	-	-	-	0.012	-	-	-	-	-	-	-	U	-
Barium	mg/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	0.23	-
Beryllium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	mg/L	0.024	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-
Cobalt	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	mg/L	2.5	-	-	-	-	-	-	-	2.5	-	-	-	-	-	-	-	1.3	-
Lead	mg/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-206*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-207*	*MW-208*	*MW-208*
Sample ID:		*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW206*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW207*	*MW208*	*MW208*
Sample Date:		*2/18/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*2/18/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/2/2005*	*2/18/1999*	*11/11/1999*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	*Units*																		
PCBs																			
Aroclor-1016 (PCB-1016)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pesticides																			
4,4'-DDD	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
beta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toxaphene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gases																			
Ethane	mg/L	U	-	-	-	-	-	-	-	0 0014	-	-	-	-	-	-	-	0 002	-
Ethene	mg/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-
Methane	mg/L	0.0018	-	-	-	-	-	-	-	0.0047	-	-	-	-	-	-	-	0 059	-
General Chemistry																			
Alkalinity, Total (As CaCO3)	mg/L	350	-	-	-	-	-	-	-	350	-	-	-	-	-	-	-	500	-
Ammonia-n	mg/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	0.3	-
Chloride	mg/L	28	-	-	-	-	-	-	-	19.5	-	-	-	-	-	-	-	111	-
Nitrate (as N)	mg/L	10	-	-	-	-	-	-	-	8.4	-	-	-	-	-	-	-	0.3	-
Sulfate	mg/L	54.4	-	-	-	-	-	-	-	46.1	-	-	-	-	-	-	-	59 6	-
Total Organic Carbon (TOC)	mg/L	2	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	3	-

Notes:
B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics)
B - Compound is found in the associated blank as well as in the sample (Organics).
D - Result was obtained from the analysis of a dilution.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.
- - Not applicable.

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-208*	*MW-208*	*MW-208*	*MW-208*	*MW-208*	*MW-208*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-210*	*MW-210*	*MW-210*	*MW-210*
Sample ID:		*MW208*	*MW208*	*MW208*	*MW208*	*MW208*	*MW208*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW210*	*MW210*	*MW210*	*MW210*
Sample Date:		*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/3/2005*	*2/22/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*	*2/18/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	***Units***																		
Volatiles																			
1,1,1-Trichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.016	0.045	0.014	U
1,2-Dichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane (Methyl Bromide)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/L	U	U	U	U	U	U	0.008 B	0.051 B	U	U	U	U	U	U	0.0007 J	0.014 B	U	U
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	mg/L	U	U	U	U	U	U	0.007	U	U	U	U	U	U	U	0.0017 J	U	U	U
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.087	0.26	0.058	0.03
Vinyl chloride	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Semi-Volatiles																			
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-208*	*MW-208*	*MW-208*	*MW-208*	*MW-208*	*MW-208*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-210*	*MW-210*	*MW-210*	*MW-210*
Sample ID:		*MW208*	*MW208*	*MW208*	*MW208*	*MW208*	*MW208*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW210*	*MW210*	*MW210*	*MW210*
Sample Date:		*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/3/2005*	*2/22/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*	*2/18/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	*Units*																		
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																			
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-	0.032	-	-	-	-	-	-	-	U	-	-	-
Barium	mg/L	-	-	-	-	-	-	0.63	-	-	-	-	-	-	-	U	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	mg/L	-	-	-	-	-	-	0.065	-	-	-	-	-	-	-	0.034	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	mg/L	-	-	-	-	-	-	3	-	-	-	-	-	-	-	2.7	-	-	-
Lead	mg/L	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	U	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-208*	*MW-208*	*MW-208*	*MW-208*	*MW-208*	*MW-208*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-210*	*MW-210*	*MW-210*	*MW-210*
Sample ID:		*MW208*	*MW208*	*MW208*	*MW208*	*MW208*	*MW208*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW210*	*MW210*	*MW210*	*MW210*
Sample Date:		*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/14/2004*	*8/3/2005*	*2/22/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*	*2/18/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*
Parameter	***Units***																		
PCBs																			
Aroclor-1016 (PCB-1016)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pesticides																			
4,4'-DDD	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
beta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toxaphene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gases																			
Ethane	mg/L	-	-	-	-	-	-	0 004	-	-	-	-	-	-	-	0 001	-	-	-
Ethene	mg/L	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-
Methane	mg/L	-	-	-	-	-	-	0 59 D/0.28 E	-	-	-	-	-	-	-	0 082 D/0.088 E	-	-	-
General Chemistry																			
Alkalinity, Total (As CaCO3)	mg/L	-	-	-	-	-	-	340	-	-	-	-	-	-	-	510	-	-	-
Ammonia-n	mg/L	-	-	-	-	-	-	1	-	-	-	-	-	-	-	U	-	-	-
Chloride	mg/L	-	-	-	-	-	-	39.1	-	-	-	-	-	-	-	198	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	U	-	-	-	-	-	-	-	0.9	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	78	-	-	-	-	-	-	-	58 9	-	-	-
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	-	4	-	-	-	-	-	-	-	2	-	-	-

Notes:
B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics)
B - Compound is found in the associated blank as well as in the sample (Organics).
D - Result was obtained from the analysis of a dilution.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.
- - Not applicable.

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-210*	*MW-210*	*MW-210*	*MW-210*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*SD001*	*SD001*	*SD002*	*SD002*	*SD004A*	*SD004A*
Sample ID:		*MW210*	*MW210*	*MW210*	*MW210*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*SDGW001*	*SDGW004*	*SDGW002*	*SDGW003*	*SDGW005*	*SDGW006*
Sample Date:		*6/14/2002*	*7/1/2004*	*10/15/2004*	*8/4/2005*	*2/18/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*	*2/19/1996*	*2/21/1996*	*2/20/1996*	*2/20/1996*	*2/23/1996*	*2/23/1996*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	*19 ft BGS*	*34 ft BGS*	*22 ft BGS*	*32 ft BGS*	*23 ft BGS*	*28 ft BGS*
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*
Parameter	***Units***																		
Volatiles																			
1,1,1-Trichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	0.0005	0.0008	0.0012	0.0028	0.0005 U	0.0005 U
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0006	0.0005 U
1,2-Dichloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	0.0005 U	0.0009	0.0005	0.0005 U	0.0009	0.0005 U
1,2-Dichloroethene (total)	mg/L	0.013	0.041	0.045	0.033	U	U	U	U	U	U	U	U	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-
Benzene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	0.0012	0.0009	0.0008	0.0019	0.0008	0.0006
Bromodichloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-
Chloroethane	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	0.0005 U	0.0005 U	0.0009	0.0016	0.0005 U	0.0005 U
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0008	0.0005 U
m&p-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	0.00005 U	0.0005 U	0.0006	0.0005 U	0.0012	0.0007
Methylene chloride	mg/L	U	U	U	U	U	0.0054 B	U	U	U	U	U	U	-	-	-	-	-	-
o-Xylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005	0.0005 U
Styrene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-
Tetrachloroethene	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-
Toluene	mg/L	U	U	U	U	0.002 J	0.0058	0.0066	U	U	U	U	U	0.0015	0.0015	0.0019	0.0023	0.0024	0.0015
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.076	0.17	0.25	0.19	U	U	U	U	U	U	U	U	0.0046	0.0028	0.0005 U	0.0005 U	0.0015	0.0020
Vinyl chloride	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	0.0005 U	0.0005 U	0.0005 U	0.0009	0.0005 U	0.0005 U
Xylene (total)	mg/L	U	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-
Semi-Volatiles																			
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-210*	*MW-210*	*MW-210*	*MW-210*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*SD001*	*SD001*	*SD002*	*SD002*	*SD004A*	*SD004A*
Sample ID:		*MW210*	*MW210*	*MW210*	*MW210*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*SDGW001*	*SDGW004*	*SDGW002*	*SDGW003*	*SDGW005*	*SDGW006*
Sample Date:		*6/14/2002*	*7/1/2004*	*10/15/2004*	*8/4/2005*	*2/18/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*	*2/19/1996*	*2/21/1996*	*2/20/1996*	*2/20/1996*	*2/23/1996*	*2/23/1996*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	*19 ft BGS*	*34 ft BGS*	*22 ft BGS*	*32 ft BGS*	*23 ft BGS*	*28 ft BGS*
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*
Parameter	***Units***																		
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																			
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	U	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	U	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	U	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	mg/L	-	-	-	-	0.013	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	mg/L	-	-	-	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	U	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*MW-210*	*MW-210*	*MW-210*	*MW-210*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*SD001*	*SD001*	*SD002*	*SD002*	*SD004A*	*SD004A*
Sample ID:		*MW210*	*MW210*	*MW210*	*MW210*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*SDGW001*	*SDGW004*	*SDGW002*	*SDGW003*	*SDGW005*	*SDGW006*
Sample Date:		*6/14/2002*	*7/1/2004*	*10/15/2004*	*8/4/2005*	*2/18/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*	*2/19/1996*	*2/21/1996*	*2/20/1996*	*2/20/1996*	*2/23/1996*	*2/23/1996*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	*19 ft BGS*	*34 ft BGS*	*22 ft BGS*	*32 ft BGS*	*23 ft BGS*	*28 ft BGS*
Sampled By:		*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PFI*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*
Parameter	*Units*																		
PCBs																			
Aroclor-1016 (PCB-1016)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pesticides																			
4,4'-DDD	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
beta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toxaphene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gases																			
Ethane	mg/L	-	-	-	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	mg/L	-	-	-	-	U	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	mg/L	-	-	-	-	1.3 D/0.3 E	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																			
Alkalinity, Total (As CaCO3)	mg/L	-	-	-	-	270	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia-n	mg/L	-	-	-	-	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	96.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	U	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	94.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).
B - Compound is found in the associated blank as well as in the sample (Organics)
D - Result was obtained from the analysis of a dilution.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.
- - Not applicable

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*SD004A*	*SD005*	*SD005*	*Rinse Blank*	*Rinse Blank*	*Rinse Blank*	*Trip Blank*	*Trip Blank*	*Trip Blank*	*Trip Blank*
Sample ID:		*SDGW007*	*SDGW008*	*SDGW009*	*SDR1001*	*SDR1002*	*SDR1003*	*Trib Blank*	*Trib Blank*	*Trib Blank*	*Trib Blank*
Sample Date:		*2/23/1996*	*2/26/1996*	*2/26/1996*	*2/20/1996*	*2/21/1996*	*2/23/1996*	*2/20/1996*	*2/21/1996*	*2/23/1996*	*2/26/1996*
Sample Depth:		*28 ft BGS*	*28 ft BGS*	*43 ft BGS*	-	-	-	-	-	-	-
Sampled By:		*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*
Parameter	*Units*	*Duplicate*									
Volatiles											
1,1,1-Trichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/L	0.0005 U	0.0005 U	0.0005 U	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/L	0.0005 U	0.0005 U	0.0005	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/L	0.0008	0.0005 U	0.0005 U	0.0005 U	0.0009	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloroethene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/L	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-
Acetone	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene	mg/L	0.0005	0.0007	0.0016	-	-	-	-	-	-	-
Bromodichloromethane	mg/L	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/L	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/L	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	mg/L	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/L	0.0005 U	0.0005 U	0.0005 U	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/L	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.0005 U	0.0006	0.0007	-	-	-	-	-	-	-
m&p-Xylene	mg/L	0.0007	0.0009	0.0009	-	-	-	-	-	-	-
Methylene chloride	mg/L	-	-	-	0.0006	0.0007	0.0005 U	0.0008	0.0005 U	0.0005 U	0.0005 U
o-Xylene	mg/L	0.0005 U	0.0005 U	0.0007	-	-	-	-	-	-	-
Styrene	mg/L	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/L	-	-	-	-	-	-	-	-	-	-
Toluene	mg/L	0.0015	0.0021	0.0029	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/L	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/L	0.0022	0.0005 U	0.0024	-	-	-	-	-	-	-
Vinyl chloride	mg/L	0.0005 U	0.0005 U	0.0005 U	-	-	-	-	-	-	-
Xylene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Semi-Volatiles											
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*SD004A*	*SD005*	*SD005*	*Rinse Blank*	*Rinse Blank*	*Rinse Blank*	*Trip Blank*	*Trip Blank*	*Trip Blank*	*Trip Blank*
Sample ID:		*SDGW007*	*SDGW008*	*SDGW009*	*SDR1001*	*SDR1002*	*SDR1003*	*Trib Blank*	*Trib Blank*	*Trib Blank*	*Trib Blank*
Sample Date:		*2/23/1996*	*2/26/1996*	*2/26/1996*	*2/20/1996*	*2/21/1996*	*2/23/1996*	*2/20/1996*	*2/21/1996*	*2/23/1996*	*2/26/1996*
Sample Depth:		*28 ft BGS*	*28 ft BGS*	*43 ft BGS*	-	-	-	-	-	-	-
Sampled By:		*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*
		Duplicate									
Parameter	*Units*										
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Aluminum	mg/L	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	-	-	-	-	-	-	-	-	-	-
Chromium Total	mg/L	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/L	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE 2.5

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER - PSARA (1996), OHIO EPA (1996) PFI (1998-2005)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*SD004A*	*SD005*	*SD005*	*Rinse Blank*	*Rinse Blank*	*Rinse Blank*	*Trip Blank*	*Trip Blank*	*Trip Blank*	*Trip Blank*
Sample ID:		*SDGW007*	*SDGW008*	*SDGW009*	*SDR1001*	*SDR1002*	*SDR1003*	*Trib Blank*	*Trib Blank*	*Trib Blank*	*Trib Blank*
Sample Date:		*2/23/1996*	*2/26/1996*	*2/26/1996*	*2/20/1996*	*2/21/1996*	*2/23/1996*	*2/20/1996*	*2/21/1996*	*2/23/1996*	*2/26/1996*
Sample Depth:		*28 ft BGS*	*28 ft BGS*	*43 ft BGS*	-	-	-	-	-	-	-
Sampled By:		*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*
		Duplicate									
Parameter	*Units*										
PCBs											
Aroclor-1016 (PCB-1016)	mg/L	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	mg/L	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	mg/L	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	mg/L	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	mg/L	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	mg/L	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	mg/L	-	-	-	-	-	-	-	-	-	-
Pesticides											
4,4'-DDD	mg/L	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	mg/L	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	mg/L	-	-	-	-	-	-	-	-	-	-
Aldrin	mg/L	-	-	-	-	-	-	-	-	-	-
alpha-BHC	mg/L	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-
beta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-
delta-BHC	mg/L	-	-	-	-	-	-	-	-	-	-
Dieldrin	mg/L	-	-	-	-	-	-	-	-	-	-
Endosulfan I	mg/L	-	-	-	-	-	-	-	-	-	-
Endosulfan II	mg/L	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	mg/L	-	-	-	-	-	-	-	-	-	-
Endrin	mg/L	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	mg/L	-	-	-	-	-	-	-	-	-	-
Endrin ketone	mg/L	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	mg/L	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	mg/L	-	-	-	-	-	-	-	-	-	-
Heptachlor	mg/L	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	mg/L	-	-	-	-	-	-	-	-	-	-
Methoxychlor	mg/L	-	-	-	-	-	-	-	-	-	-
Toxaphene	mg/L	-	-	-	-	-	-	-	-	-	-
Gases											
Ethane	mg/L	-	-	-	-	-	-	-	-	-	-
Ethene	mg/L	-	-	-	-	-	-	-	-	-	-
Methane	mg/L	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia-n	mg/L	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-

Notes:
B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).
B - Compound is found in the associated blank as well as in the sample (Organics).
D - Result was obtained from the analysis of a dilution.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.
- - Not applicable.

TABLE 2.6

SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES - OHIO EPA (1996)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*S01(OEPA)*	*S02(OEPA)*	*S03(OEPA)*	*S03(OEPA)*	*S04(OEPA)*	*S05(OEPA)*	*S06(OEPA)*	*S07(OEPA)*	*S08(OEPA)*	*S09(OEPA)*	*S10(OEPA)*	*S11(OEPA)*
Sample ID:		*96-DV-03-S01*	*96-DV-03-S02*	*96-DV-03-S03*	*96-DV-03-D03*	*96-DV-03-S04*	*96-DV-03-S05*	*96-DV-03-S06*	*96-DV-03-S07*	*96-DV-03-S08*	*96-DV-03-S09*	*96-DV-03-S10*	*96-DV-03-S11*
Sample Date:		*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*
Sample Depth:		*4-4.6 ft BGS*	*0-0.1 ft BGS*	*1.5-2 ft BGS*	*1.5-2 ft BGS Duplicate*	*1.5-2 ft BGS*	*5 ft BGS*	*1.5-2.5 ft BGS*	*0-0.2 ft BGS Background*	*0.2-0.3 ft BGS*	*0.3-0.5 ft BGS*	*0-0.3 ft BGS*	*0.2-0.3 ft BGS*
Parameter	*Units*												
Volatiles													
1,1,1-Trichloroethane	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,1,2,2-Tetrachloroethane	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,1,2-Trichloroethane	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,1-Dichloroethane	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,1-Dichloroethene	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,2-Dichloroethane	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,2-Dichloroethene (total)	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,2-Dichloropropane	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
2-Butanone (Methyl Ethyl Ketone)	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
2-Hexanone	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Acetone	ug/kg	12 U	10 U	12 U	3 J	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Benzene	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Bromodichloromethane	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Bromoform	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Bromomethane (Methyl Bromide)	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Carbon disulfide	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Carbon tetrachloride	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Chlorobenzene	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Chloroethane	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Chloroform (Trichloromethane)	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Chloromethane (Methyl Chloride)	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
cis-1,3-Dichloropropene	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Dibromochloromethane	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Ethylbenzene	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Methylene chloride	ug/kg	12 JBU	16 BU	12 JBU	12 JBU	16 JBU	12 JBU	16 JBU	11 JBU	16	11 JBU	12 JBU	17 BU
Styrene	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Tetrachloroethene	ug/kg	59	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Toluene	ug/kg	12 U	10 U	7 J	5 J	16 U	12 U	16 U	11 U	10 J	11 U	4 J	7 J
trans-1,3-Dichloropropene	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Trichloroethene	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Vinyl chloride	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Xylene (total)	ug/kg	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Semi-Volatiles													
1,2,4-Trichlorobenzene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
1,2-Dichlorobenzene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
1,3-Dichlorobenzene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
1,4-Dichlorobenzene	ug/kg	140 J	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
2,4,5-Trichlorophenol	ug/kg	1000 U	860 U	1000 U	1000 U	1300 U	960 U	1300 U	940 U	920 U	880 U	1000 U	900 U
2,4,6-Trichlorophenol	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
2,4-Dichlorophenol	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
2,4-Dimethylphenol	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
2,4-Dinitrophenol	ug/kg	1000 U	860 U	1000 U	1000 U	1300 U	960 U	1300 U	940 U	920 U	880 U	1000 U	900 U
2,4-Dinitrotoluene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
2,6-Dinitrotoluene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
2-Chloronaphthalene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
2-Chlorophenol	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
2-Methylnaphthalene	ug/kg	410 U	340 U	410 U	410 U	77 J	380 U	530 U	380 U	390	49 J	46 J	74 J
2-Methylphenol	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
2-Nitroaniline	ug/kg	1000 U	860 U	1000 U	1000 U	1300 U	960 U	1300 U	940 U	920 U	880 U	1000 U	900 U
2-Nitrophenol	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
3-Nitroaniline	ug/kg	1000 U	860 U	1000 U	1000 U	1300 U	960 U	1300 U	940 U	920 U	880 U	1000 U	900 U
4,6-Dinitro-2-methylphenol	ug/kg	1000 U	860 U	1000 U	1000 U	1300 U	960 U	1300 U	940 U	920 U	880 U	1000 U	900 U
4-Bromophenyl phenyl ether	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
4-Chloro-3-methylphenol	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
4-Chloroaniline	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
4-Chlorophenyl phenyl ether	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
4-Methylphenol	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U

TABLE 2.6

SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES - OHIO EPA (1996)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*S01(OEPA)*	*S02(OEPA)*	*S03(OEPA)*	*S03(OEPA)*	*S04(OEPA)*	*S05(OEPA)*	*S06(OEPA)*	*S07(OEPA)*	*S08(OEPA)*	*S09(OEPA)*	*S10(OEPA)*	*S11(OEPA)*
Sample ID:		*96-DV-03-S01*	*96-DV-03-S02*	*96-DV-03-S03*	*96-DV-03-D03*	*96-DV-03-S04*	*96-DV-03-S05*	*96-DV-03-S06*	*96-DV-03-S07*	*96-DV-03-S08*	*96-DV-03-S09*	*96-DV-03-S10*	*96-DV-03-S11*
Sample Date:		*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*
Sample Depth:		*4-4.6 ft BGS*	*0-0.1 ft BGS*	*1.5-2 ft BGS*	*1.5-2 ft BGS*	*1.5-2 ft BGS*	*5 ft BGS*	*1.5-2.5 ft BGS*	*0-0.2 ft BGS*	*0.2-0.3 ft BGS*	*0.3-0.5 ft BGS*	*0-0.3 ft BGS*	*0.2-0.3 ft BGS*
					Duplicate				*Background*				
Parameter	*Units*												
4-Nitroaniline	ug/kg	1000 U	860 U	1000 U	1000 U	1300 U	960 U	1300 U	940 U	920 U	880 U	1000 U	900 U
4-Nitrophenol	ug/kg	1000 U	860 U	1000 U	1000 U	1300 U	960 U	1300 U	940 U	920 U	880 U	1000 U	900 U
Acenaphthene	ug/kg	410 U	340 U	410 U	410 U	33 J	380 U	530 U	380 U	91 J	350 U	400 U	26 J
Acenaphthylene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	50 J
Anthracene	ug/kg	410 U	340 U	410 U	410 U	29 J	380 U	530 U	380 U	290 J	26 J	400 U	97 J
Benzo(a)anthracene	ug/kg	410 U	340 U	410 U	410 U	41 J	380 U	530 U	58 J	1100	180 J	51 J	950
Benzo(a)pyrene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	62 J	820	110 J	400 U	1000
Benzo(b)fluoranthene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	1000	320 J	79 J	1300
Benzo(g,h,i)perylene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	160 J	350 U	400 U	310 J
Benzo(k)fluoranthene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	950	200 J	73 J	920
bis(2-Chloroethoxy)methane	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
bis(2-Chloroethyl)ether	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
bis(2-Ethylhexyl)phthalate	ug/kg	24 J	33 J	410 U	410 U	540	380 U	530 U	32 J	230 J	2100	72 J	120 J
Butyl benzylphthalate	ug/kg	410 U	25 J	410 U	33 J	520 U	380 U	530 U	26 J	370 U	18000 E	61 J	360 U
Carbazole	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 J	280 J	350 U	400 U	38 J
Chrysene	ug/kg	410 U	340 U	21 J	25 J	56 J	27 J	530 U	83 J	1200	320 J	93 J	1000
Dibenz(a,h)anthracene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	310 J	350 U	400 U	450
Dibenzofuran	ug/kg	410 U	340 U	410 U	410 U	28 J	380 U	530 U	380 U	160 J	350 U	400 U	29 J
Diethyl phthalate	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
Dimethyl phthalate	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
Di-n-butylphthalate	ug/kg	410 U	18 J	410 U	27 J	28 J	380 U	31 J	28 J	370 U	1500	35 J	360 U
Di-n-octyl phthalate	ug/kg	410 U	23 J	410 U	410 U	520 U	380 U	530 U	380 U	19 J	350 U	400 U	360 U
Fluoranthene	ug/kg	410 U	21 J	410 U	410 U	140 J	31 J	530 U	110 J	2000	340 J	100 J	1300
Fluorene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	87 J	350 U	400 U	38 J
Hexachlorobenzene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
Hexachlorobutadiene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
Hexachlorocyclopentadiene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
Hexachloroethane	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
Indeno(1,2,3-cd)pyrene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	48 J	480	120 J	400 U	910
Isophorone	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
Naphthalene	ug/kg	410 U	20 J	410 U	410 U	58 J	380 U	530 U	380 U	250 J	35 J	26 J	59 J
Nitrobenzene	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
N-Nitrosodi-n-propylamine	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
N-Nitrosodiphenylamine	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	27 J	350 U	400 U	360 U
Pentachlorophenol	ug/kg	1000 U	860 U	1000 U	1000 U	1300 U	960 U	1300 U	940 U	920 U	880 U	1000 U	900 U
Phenanthrene	ug/kg	410 U	340 U	33 J	34 J	170 J	21 J	530 U	63 J	1700	180 J	100 J	570
Phenol	ug/kg	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	64 J	400 U	360 U
Pyrene	ug/kg	410 U	20 J	410 U	410 U	160 J	30 J	1300 U	130 J	1900	320 J	120 J	1600
Metals													
Aluminum	mg/kg	3470	10400	1910	1140	5290	9920	6210	6890	14300	4970	8080	3290
Antimony	mg/kg	0.75 U	0.70 B	0.74 U	0.90 U	1.0 B	3.5 B	1.0 U	0.68 U	278	2.9 B	8.4 B	2.1 B
Arsenic	mg/kg	20.7	77.2	1.6 B	1.2 U	27.0	12.2	49.7	6.0	141	36.0	15.4	6.6
Barium	mg/kg	182	272	12.2 B	7.2 B	222	268	320	112	13000	824	318	93.8
Beryllium	mg/kg	2.0	5.8	0.25 U	0.30 U	3.1	0.68 B	3.3	0.62 B	0.77 B	2.6	1.9	1.1 B
Cadmium	mg/kg	0.47 B	6.6	0.43 B	0.30 U	0.38 B	0.23 U	0.33 U	0.57 B	0.69 B	3.9	16.3	1.4
Calcium	mg/kg	4060	5650	995 B	979 B	16400	25500	2280	12900	5410	19800	48800	98000
Chromium Total	mg/kg	5.5	23.6	17.6	8.5	14.0	12.6	16.5	17.3	62.0	50.7	43.2	18.7
Cobalt	mg/kg	6.0 B	16.2	2.0 B	1.4 B	9.6 B	7.9 B	8.7 B	6.6 B	17.5	11.2	13.8	4.3 B
Copper	mg/kg	26.8	91.8	136	96.9	73.0	18.3	41.5	22.5	1830	1680	191000	405
Cyanide (total)	mg/kg	0.27 B	0.26 B	0.19 U	0.22 U	0.34 B	0.17 U	0.29 B	0.30 B	2.3	3.7	0.60 B	0.55
Iron	mg/kg	3240	9430	24200	15900	5890	19200	3120	13200	59500	13800	92300	16000
Lead	mg/kg	29.9	110	15.4	7.2	97.0	16.8	18.2	31.5	652	1990	12100	242
Magnesium	mg/kg	1010 B	1480	565 B	560 B	8070	13200	596 B	6100	2480	18200	8860	36200
Manganese	mg/kg	98.2	99.1	427	265	72.8	621	45.2	681	614	236	693	344
Mercury	mg/kg	0.12 U	0.48	0.12 U	0.15 U	0.14 U	0.12 U	0.17 U	0.18	0.11 U	0.21	0.13 U	0.11 U
Nickel	mg/kg	10.4	34.6	18.7	11.3 B	20.0	15.1	16.6	12.9	78.3	85.0	139	24.2
Potassium	mg/kg	611 B	1390	126 B	86 B	810 B	1010 B	1230 B	886 B	1400	685 B	763 B	599 B
Selenium	mg/kg	1.3	8.8	0.99 U	1.2 U	6.3	0.93 U	8.6	0.90 U	2.1	2.8	2.6	0.93 B
Silver	mg/kg	0.25 U	0.21 U	0.25 U	0.30 U	0.28 U	0.23 U	0.33 U	0.45 B	0.23 B	0.90 B	7.6	0.22 U

TABLE 2.6

SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES - OHIO EPA (1996)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*S01(OEPA)*	*S02(OEPA)*	*S03(OEPA)*	*S03(OEPA)*	*S04(OEPA)*	*S05(OEPA)*	*S06(OEPA)*	*S07(OEPA)*	*S08(OEPA)*	*S09(OEPA)*	*S10(OEPA)*	*S11(OEPA)*
Sample ID:		*96-DV-03-S01*	*96-DV-03-S02*	*96-DV-03-S03*	*96-DV-03-D03*	*96-DV-03-S04*	*96-DV-03-S05*	*96-DV-03-S06*	*96-DV-03-S07*	*96-DV-03-S08*	*96-DV-03-S09*	*96-DV-03-S10*	*96-DV-03-S11*
Sample Date:		*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*
Sample Depth:		*4-4.6 ft BGS*	*0-0.1 ft BGS*	*1.5-2 ft BGS*	*1.5-2 ft BGS Duplicate*	*1.5-2 ft BGS*	*5 ft BGS*	*1.5-2.5 ft BGS*	*0-0.2 ft BGS Background*	*0.2-0.3 ft BGS*	*0.3-0.5 ft BGS*	*0-0.3 ft BGS*	*0.2-0.3 ft BGS*
Parameter	*Units*												
Sodium	mg/kg	276 B	364 B	327 B	318 B	448 B	364 B	406 B	207 B	254 B	279 B	809 B	368 B
Thallium	mg/kg	1.0 U	1.8 B	2.1 B	1.3 B	1.7 B	2.4	1.3 U	2.2 B	4.0	1.5 B	4.5	1.3 B
Vanadium	mg/kg	18.3	92.6	1.2 B	0.62 B	47.7	24.0	61.9	17.4	18.5	33.6	28.1	15.6
Zinc	mg/kg	33.7	39.4	41.7	22.3	231	60.9	48.0	76.9	286	291	11500	159
PCBs													
Aroclor-1016 (PCB-1016)	ug/kg	41 U	34 U	41 U	41 U	52 U	38 U	53 U	38 U	37 U	35 U	40 U	36 U
Aroclor-1221 (PCB-1221)	ug/kg	83 U	69 U	83 U	84 U	100 U	78 U	110 U	76 U	74 U	71 U	82 U	73 U
Aroclor-1232 (PCB-1232)	ug/kg	41 U	34 U	41 U	41 U	52 U	38 U	53 U	38 U	37 U	35 U	40 U	36 U
Aroclor-1242 (PCB-1242)	ug/kg	41 U	34 U	41 U	41 U	52 U	38 U	53 U	38 U	37 U	35 U	40 U	36 U
Aroclor-1248 (PCB-1248)	ug/kg	41 U	34 U	41 U	41 U	52 U	38 U	53 U	38 U	37 U	35 U	40 U	36 U
Aroclor-1254 (PCB-1254)	ug/kg	41 U	34 U	41 U	41 U	52 U	38 U	53 U	38 U	37 U	830	170 P	36 U
Aroclor-1260 (PCB-1260)	ug/kg	41 U	34 U	41 U	41 U	52 U	38 U	53 U	38 U	37 U	1200	40 U	36 U
Pesticides													
4,4'-DDD	ug/kg	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	0.65 J	3.7 U	3.5 U	4.0 U	4.4
4,4'-DDE	ug/kg	4.1 U	3.4 U	4.1 U	4.1 U	2.6 J	0.44 PJ	5.3 U	3.8 U	2.4 PJ	3.5 U	4.0 U	3.6 U
4,4'-DDT	ug/kg	0.60 PJ	3.4 U	4.1 U	4.1 U	5.2 U	0.71 PJ	5.3 U	1.6 PJ	8.8 P	3.5 U	4.0 U	3.6 U
Aldrin	ug/kg	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2.0 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
alpha-BHC	ug/kg	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2.0 U	2.7 U	1.9 U	0.71 PJ	1.8 U	2.1 U	1.8 U
alpha-Chlordane	ug/kg	2.1 U	1.8 U	2.1 U	2.1 U	5.4 P	2.0 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
beta-BHC	ug/kg	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2.0 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
delta-BHC	ug/kg	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2.0 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
Dieldrin	ug/kg	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	3.8 U	3.7 U	3.5 U	4.0 U	3.6 U
Endosulfan I	ug/kg	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2.0 U	2.7 U	0.42 PJ	1.9 U	1.8 U	2.1 U	1.8 U
Endosulfan II	ug/kg	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	1.4 J	5.4	3.5 U	4.0 U	3.6 U
Endosulfan sulfate	ug/kg	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	3.8 U	3.7 U	3.5 U	4.0 U	3.6 U
Endrin	ug/kg	1.4 PJ	3.4 U	2.3 PJ	4.1 U	5.2 U	3.8 U	5.3 U	3.8 U	3.7 U	3.5 U	4.0 U	3.6 U
Endrin aldehyde	ug/kg	2.2 PJ	3.4 U	6.6	6.6 P	5.2 U	4.0 P	5.3 U	6.4 P	3.7 U	3.5 U	4.0 U	3.6 U
Endrin ketone	ug/kg	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	3.8 U	3.7 U	3.5 U	4.0 U	7.5 P
gamma-BHC (Lindane)	ug/kg	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2.0 U	2.7 U	1.9 U	1.8 J	1.8 U	0.77 PJ	0.42 J
gamma-Chlordane	ug/kg	2.1 U	0.35 PJ	2.1 U	0.96 PJ	4.3	2.0 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	2.3 P
Heptachlor	ug/kg	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2.0 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
Heptachlor epoxide	ug/kg	2.1 U	1.8 U	2.1 U	0.49 PJ	0.78 PJ	2.0 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
Methoxychlor	ug/kg	21 U	18 U	1.8 PJ	21 U	26 U	0.94 PJ	27 U	19 U	19 U	18 U	21 U	18 U
Toxaphene	ug/kg	210 U	180 U	240 U	210 U	260 U	200 U	270 U	190 U	190 U	180 U	210 U	180 U

Notes:
B - Compound is found in the associated blank as well as in the sample.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.

TABLE 2.7

SUMMARY OF ANALYTICAL RESULTS FOR SEDIMENT SAMPLES - OHIO EPA (1996)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*S15(OEPA)*	*S16(OEPA)*	*S17(OEPA)*	*S17(OEPA)*	*S18(OEPA)*	*S19(OEPA)*
Sample ID:		*96-DV-03-S15*	*96-DV-03-S16*	*96-DV-03-S17*	*96-DV-03-D17*	*96-DV-03-S18*	*96-DV-03-S19*
Sample Date:		*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*
Sample Depth:		*15-18 ft BGS*	*15-18 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS Duplicate*	*0-0.5 ft BGS*	*0-0.5 ft BGS Background*
Parameter	*Units*						
Volatiles							
1,1,1-Trichloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
1,1,2,2-Tetrachloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
1,1,2-Trichloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
1,1-Dichloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
1,1-Dichloroethene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
1,2-Dichloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
1,2-Dichloroethene (total)	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
1,2-Dichloropropane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
2-Butanone (Methyl Ethyl Ketone)	ug/kg	26 U	10 J	15 U	14 U	5 J	18 U
2-Hexanone	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Acetone	ug/kg	47	43	15 U	14 U	33	19
Benzene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Bromodichloromethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Bromoform	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Bromomethane (Methyl Bromide)	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Carbon disulfide	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Carbon tetrachloride	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Chlorobenzene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Chloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Chloroform (Trichloromethane)	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Chloromethane (Methyl Chloride)	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
cis-1,3-Dichloropropene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Dibromochloromethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Ethylbenzene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Methylene chloride	ug/kg	26 BJU	29 BJU	15 BJU	14 BJU	18 BJU	18 BJU
Styrene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Tetrachloroethene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Toluene	ug/kg	26 U	29 U	15 U	14 U	18 U	1 J
trans-1,3-Dichloropropene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Trichloroethene	ug/kg	0.8 J	29 U	0.7 J	14 U	18 U	18 U
Vinyl chloride	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Xylene (total)	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U
Semi-Volatiles							
1,2,4-Trichlorobenzene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
1,2-Dichlorobenzene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
1,3-Dichlorobenzene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
1,4-Dichlorobenzene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
2,4,5-Trichlorophenol	ug/kg	2100 U	2400 U	1300 U	1200 U	1500 U	1500 U
2,4,6-Trichlorophenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
2,4-Dichlorophenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
2,4-Dimethylphenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
2,4-Dinitrophenol	ug/kg	2100 U	2400 U	1300 U	1200 U	1500 U	1500 U
2,4-Dinitrotoluene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
2,6-Dinitrotoluene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
2-Chloronaphthalene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
2-Chlorophenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
2-Methylnaphthalene	ug/kg	120 J	75 J	23 J	19 J	16 J	31 J
2-Methylphenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
2-Nitroaniline	ug/kg	2100 U	2400 U	1300 U	1200 U	1500 U	1500 U
2-Nitrophenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
3,3'-Dichlorobenzidine	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
3-Nitroaniline	ug/kg	2100 U	2400 U	1300 U	1200 U	1500 U	1500 U
4,6-Dinitro-2-methylphenol	ug/kg	2100 U	2400 U	1300 U	1200 U	1500 U	1500 U
4-Bromophenyl phenyl ether	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
4-Chloro-3-methylphenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
4-Chloroaniline	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
4-Chlorophenyl phenyl ether	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
4-Methylphenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
4-Nitroaniline	ug/kg	2100 U	2400 U	1300 U	1200 U	1500 U	1500 U
4-Nitrophenol	ug/kg	2100 U	2400 U	1300 U	1200 U	1500 U	1500 U
Acenaphthene	ug/kg	59 J	92 J	21 J	15 J	40 J	89 J
Acenaphthylene	ug/kg	850 U	61 J	160 J	150 J	14 J	22 J
Anthracene	ug/kg	110 J	230 J	400 J	390 J	75 J	170 J
Benzo(a)anthracene	ug/kg	490 J	1500	2200	2100	600	1300
Benzo(a)pyrene	ug/kg	460 J	1800	2100	2100	580	1100
Benzo(b)fluoranthene	ug/kg	800 J	2500	2700	2300	1000	1800
Benzo(g,h,i)perylene	ug/kg	490 J	2000	2200	1600	660	1400
Benzo(k)fluoranthene	ug/kg	300 J	950	930	930	410 J	690
bis(2-Chloroethoxy)methane	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
bis(2-Chloroethyl)ether	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
bis(2-Ethylhexyl)phthalate	ug/kg	850 U	470 J	500 U	84 J	330 J	360 J
Butyl benzylphthalate	ug/kg	850 U	940 U	500 U	460 U	580 U	84 J

TABLE 2.7

SUMMARY OF ANALYTICAL RESULTS FOR SEDIMENT SAMPLES - OHIO EPA (1996)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*S15(OEPA)*	*S16(OEPA)*	*S17(OEPA)*	*S17(OEPA)*	*S18(OEPA)*	*S19(OEPA)*
Sample ID:		*96-DV-03-S15*	*96-DV-03-S16*	*96-DV-03-S17*	*96-DV-03-D17*	*96-DV-03-S18*	*96-DV-03-S19*
Sample Date:		*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*
Sample Depth:		*15-18 ft BGS*	*15-18 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS Duplicate*	*0-0.5 ft BGS*	*0-0.5 ft BGS Background*
Parameter	*Units*						
Carbazole	ug/kg	85 J	110 J	20 J	15 J	84 J	190 J
Chrysene	ug/kg	550 J	1500	2500	2100	710	1500
Dibenz(a,h)anthracene	ug/kg	120 J	480 J	430 J	320 J	150 J	310 J
Dibenzofuran	ug/kg	70 J	95 J	11 J	7 J	34 J	100 J
Diethyl phthalate	ug/kg	850 U	39 J	24 J	27 J	51 J	33 J
Dimethyl phthalate	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
Di-n-butylphthalate	ug/kg	850 BJU	940 BJU	500 BJU	460 BJU	580 BJU	600 BJU
Di-n-octyl phthalate	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
Fluoranthene	ug/kg	1100	2600	2000	2000	1400	2200
Fluorene	ug/kg	76 J	160 J	53 J	43 J	60 J	130 J
Hexachlorobenzene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
Hexachlorobutadiene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
Hexachlorocyclopentadiene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
Hexachloroethane	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
Indeno(1,2,3-cd)pyrene	ug/kg	460 J	1900	1900	1400	650	1400
Isophorone	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
Naphthalene	ug/kg	70 J	77 J	31 J	25 J	18 J	63 J
Nitrobenzene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
N-Nitrosodi-n-propylamine	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
N-Nitrosodiphenylamine	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
Pentachlorophenol	ug/kg	2100 U	2400 U	1300 U	1200 U	1500 U	1500 U
Phenanthrene	ug/kg	890	1500	700	610	830	1900
Phenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U
Pyrene	ug/kg	1300	3000	4700 E	3700 E	1400	2700
Metals							
Aluminum	mg/kg	2750	6590	9750	8450	8940	8600
Antimony	mg/kg	9.1 U	13.5 U	7.9 U	8.1 U	10 U	10.1 U
Arsenic	mg/kg	10.3	12.6	9.2	9.2	6.0	9
Barium	mg/kg	73.0	137	128	125	117	130
Beryllium	mg/kg	0.28 B	0.35 B	0.54 B	0.48 B	0.5 B	0.47 B
Cadmium	mg/kg	1.0 U	1.5 U	0.89 U	0.91 U	1.1 U	1.1 U
Calcium	mg/kg	53600	11800	61700	58100	81900	74900
Chromium Total	mg/kg	23.1	17.2	14.9	13.7	18	22.3
Cobalt	mg/kg	3.7 B	6.7 B	6.6 B	6.2 B	6.5 B	7.2 B
Copper	mg/kg	29.3	24.7	29.3	29.0	26	33.5
Cyanide (total)	mg/kg	0.27 B	0.17 U	0.19 B	0.21 B	0.23 B	0.32 B
Iron	mg/kg	11300	13500	16400	15500	15000	15800
Lead	mg/kg	33.7	42.0	51.6	47.2	30.5	47.9
Magnesium	mg/kg	13600	21600	17200	16100	24200	20600
Manganese	mg/kg	205	545	299	258	330	420
Mercury	mg/kg	0.08 U	0.12 U	0.63	0.65	0.09 U	0.13 B
Nickel	mg/kg	13.4	18.7 B	16.2	17.9	19.9	23.7
Potassium	mg/kg	297 B	736 B	812 B	709 B	1090 B	991 B
Selenium	mg/kg	1.1 B	0.59 B	0.4 B	0.59 B	0.73 B	0.59 B
Silver	mg/kg	1.4 U	2.1 U	1.2 U	1.2 U	1.5 U	1.5 U
Sodium	mg/kg	165 B	206 B	144 B	131 B	191 B	183 B
Thallium	mg/kg	0.68 B	0.98 U	1.0 B	0.66 B	0.84 B	0.9 B
Vanadium	mg/kg	9.6 B	16.8 B	21.8	19.2	20.2	20
Zinc	mg/kg	80.7	143	93.6 B	80.4	114	132
PCBs							
Aroclor-1016 (PCB-1016)	ug/kg	87 U	94 U	50 U	46 U	58 U	60 U
Aroclor-1221 (PCB-1221)	ug/kg	180 U	190 U	100 U	93 U	120 U	120 U
Aroclor-1232 (PCB-1232)	ug/kg	87 U	94 U	50 U	46 U	58 U	60 U
Aroclor-1242 (PCB-1242)	ug/kg	87 U	94 U	50 U	46 U	58 U	60 U
Aroclor-1248 (PCB-1248)	ug/kg	87 U	94 U	50 U	46 U	58 U	60 U
Aroclor-1254 (PCB-1254)	ug/kg	660	94 U	50 U	46 U	58 U	60 U
Aroclor-1260 (PCB-1260)	ug/kg	87 U	94 U	50 U	46 U	58 U	60 U
Pesticides							
4,4'-DDD	ug/kg	1.7 JP	9.4 U	2.2 JP	4.9	3.4 JP	3.6 JP
4,4'-DDE	ug/kg	8.7 U	2.2 JP	5.0 U	4.6 U	2.6 JP	2.4 JP
4,4'-DDT	ug/kg	4.4 JP	2.4 JP	2.1 JP	2.2 JP	2.7 JP	2.3 JP
Aldrin	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3.0 U	1.3 JP
alpha-BHC	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3.0 U	3.1 U
alpha-Chlordane	ug/kg	12	1.8 JP	0.72 JP	2.4 U	7.0 P	6.6 P
beta-BHC	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3.0 U	3.1 U
delta-BHC	ug/kg	4.5 U	4.9 U	1.4 JP	1.5 JP	3.0 U	3.1 U
Dieldrin	ug/kg	9.6 P	2.6 JP	0.86 JP	4.6 U	2.5 JP	4.0 JP
Endosulfan I	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3.0 U	3.1 U
Endosulfan II	ug/kg	8.7 U	9.4 U	5.0 U	4.6 U	5.8 U	6.0 U
Endosulfan sulfate	ug/kg	3.7 JP	9.4 U	5.0 U	4.6 U	3.0 JP	6.0 U
Endrin	ug/kg	34	9.4 U	3.4 JP	4.8 P	2.4 JP	6.0 U
Endrin aldehyde	ug/kg	7.9 JP	9.4 U	5.0 U	4.6 U	5.8 U	6.0 U

TABLE 2.7

SUMMARY OF ANALYTICAL RESULTS FOR SEDIMENT SAMPLES - OHIO EPA (1996)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		S15(OEPA)	S16(OEPA)	S17(OEPA)	S17(OEPA)	S18(OEPA)	S19(OEPA)
Sample ID:		*96-DV-03-S15*	*96-DV-03-S16*	*96-DV-03-S17*	*96-DV-03-D17*	*96-DV-03-S18*	*96-DV-03-S19*
Sample Date:		*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*	*7/9/1996*
Sample Depth:		*15-18 ft BGS*	*15-18 ft BGS*	*0-0.5 ft BGS*	*0-0.5 ft BGS Duplicate*	*0-0.5 ft BGS*	*0-0.5 ft BGS Background*
Parameter	*Units*						
Endrin ketone	ug/kg	8.7 U	4.9 J	3.2 JP	4.0 JP	5.8 U	2.5 JP
gamma-BHC (Lindane)	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3.0 U	3.1 U
gamma-Chlordane	ug/kg	4.9 P	3.2 J	1.4 J	2.4 U	6.9	5.6 P
Heptachlor	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3.0 U	3.1 U
Heptachlor epoxide	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3.0 U	3.1 U
Methoxychlor	ug/kg	18 J	17 JP	50	65	8.9 JP	12 JP
Toxaphene	ug/kg	450 U	490 U	260 U	240 U	300 U	310 U

Notes:
B - Compound is found in the associated blank as well as in the sample.
E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.
U - Compound was analyzed for but not detected.

TABLE 2.8

SUMMARY OF MONITORING WELL AND LAKE/POND WATER LEVEL MEASURMENTS
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Well ID	*Top of Casing*	*6/8/1998*	*7/6/1998*	*8/4/1998*	*9/1/1998*	*10/6/1998*	*11/2/1998*	*12/1/1998*	*1/11/1999*	*2/4/1999*	*3/1/1999*	*4/5/1999*	*5/3/1999*	*6/3/1999*	*7/6/1999*
MW-101A	725.17	16.11	14.64	15.99	16.93	17.57	17.41	17.9	17.46	14.38	14.27	15.81	15.45	16.83	17.22
MW-102	717.82	8.61	6.89	8.61	9.53	10.11	9.92	10.27	9.97	6.71	5.7	8.31	7.77	9.31	9.6
MW-103	716.72	7.44	5.65	7.47	8.37	8.95	8.81	9.12	8.8	5.58	4.34	7.15	6.62	8.15	8.44
MW-201	715.27	5.88	3.94	6	6.85	7.44	7.28	7.61	7.24	4.18	2.44	5.62	5.06	6.57	6.85
MW-202	733.39	24.06	22.58	23.9	24.78	24.42	25.42	25.85	25.5	22.72	22.34	23.65	23.55	24.7	25.21
MW-203	730.33	21.16	19.77	20.95	21.82	22.48	22.46	22.97	22.66	19.91	19.67	20.84	20.72	21.84	22.29
MW-204	722.89	13.85	12.42	13.61	14.46	15.14	15.1	15.63	15.3	12.48	12.25	13.52	13.37	14.49	14.93
MW-206	716.21	-	-	-	-	-	-	-	-	-	2.96	6.39	5.91	7.39	6.69
MW-207	716.48	-	-	-	-	-	-	-	-	-	3.13	6.52	6.12	7.46	7.87
MW-208	734.12	-	-	-	-	-	-	-	-	-	22.49	24.1	23.85	25.08	25.59
MW-209	714.46	-	-	-	-	-	-	-	-	-	4.01	5.49	5.27	6.39	6.73
MW-210	732.72	-	-	-	-	-	-	-	-	-	22.07	23.15	23.02	24.14	24.61
MW-212	729.09	-	-	-	-	-	-	-	-	-	18.69	20.1	19.96	21.05	21.4
P-211	715.87	-	-	-	-	-	-	-	-	-	3.75	4.67	4.56	5.77	6.32
LAKE	713.25	2.38	0.96	2.25	3.25	3.92	3.82	4.15	snow covered	0.3	0.5	2.22	1.52	3.33	3.61
LARGE-POND	711.83	*2.14*	*0.75*	*2.11*	*3.17*	*dry*	*dry*	*dry*	*snow covered*	*above guage*	*0.2*	*1.65*	*1.34*	*3.14*	*3.26*
SMALL-POND	711.56	dry	2.1	dry	dry	dry	dry	dry	snow covered	1.32	2	3.25	3.02	dry	dry

Notes:
Elevations for monitoring wells and piezometer well are depth to water below top of casing.
Elevations for lake and ponds are depth to water from top of gauge.
- - Not applicable.

TABLE 2.8

SUMMARY OF MONITORING WELL AND LAKE/POND WATER LEVEL MEASURMENTS
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Well ID	*Top of Casing*	*8/4/1999*	*9/7/1999*	*10/7/1999*	*11/10/1999*	*12/3/1999*	*2/2/2000*	*4/11/2000*	*5/10/2000*	*7/17/2000*	*10/11/2000*	*2/6/2001*	*6/6/2001*	*10/25/2001*
MW-101A	725.17	17.77	18.37	18.62	18.62	18.72	17.96	13.86	16.11	16.87	16.56	16.3	15.2	14.35
MW-102	717.82	10.11	10.73	10.95	10.9	11.02	9.34	3.58	8.41	9.33	7.57	8.61	7.46	no access
MW-103	716.72	8.96	9.58	9.84	9.79	9.91	9.23	3.86	7.26	8.21	8.7	7.47	6.36	no access
MW-201	715.27	7.44	8.1	8.33	8.31	8.41	7.71	2.02	5.71	6.7	6.4	5.91	4.91	no access
MW-202	733.39	25.81	26.47	26.78	26.76	26.97	26.11	22.44	24.28	25	24.62	24.46	23.62	23.01
MW-203	730.33	22.86	23.5	23.8	23.89	23.99	23.23	15.8	21.41	22.02	21.74	21.61	20.73	20.3
MW-204	722.89	15.52	16.12	16.42	16.49	16.61	15.84	12.35	13.94	14.66	14.37	14.17	15.34	12.77
MW-206	716.21	8.3	9	9.22	9.19	9.31	8.76	2.62	6.54	7.56	6.86	6.75	5.8	no access
MW-207	716.48	8.45	9.18	9.37	9.37	9.5	8.76	2.93	6.76	7.74	7.09	6.89	6.1	no access
MW-208	734.12	26.19	26.87	27.17	27.18	27.37	26.58	22.25	24.51	25.45	24.95	24.84	23.92	23.19
MW-209	714.46	7.27	7.84	8.13	8.17	8.31	7.56	4.06	5.82	6.41	6.09	6	5.21	4.27
MW-210	732.72	25.2	25.83	26.16	26.41	26.37	25.61	22.23	23.71	24.37	24.08	23.95	23.04	22.86
MW-212	729.09	21.97	22.54	22.79	22.91	23	22.21	18.8	20.55	21.09	20.76	20.68	20.07	18.99
P-211	715.87	6.92	7.68	8.25	8.62	8.8	7.55	4.2	9.69	6.02	6.16	5.37	4.92	4.78
LAKE	713.25	4.2	4.9	remove gauge	-	-	-	-	-	-	-	-	-	-
LARGE-POND	711.83	dry	dry	dry	-	-	-	-	-	-	-	-	-	-
SMALL-POND	711.56	dry	dry	dry	-	-	-	-	-	-	-	-	-	-

Notes:
Elevations for monitoring wells and piezometer well are depth to water below top of casing.
Elevations for lake and ponds are depth to water from top of gauge.
- - Not applicable.

TABLE 2.8

SUMMARY OF MONITORING WELL AND LAKE/POND WATER LEVEL MEASURMENTS
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Well ID	*Top of Casing*	*2/15/2002*	*4/9/2002*	*5/2/2002*	*6/14/2002*	*10/2/2002*	*3/11/2003*	*5/12/2003*	*10/14/2004*	*8/2/2005*
MW-101A	725.17	14.49	13.47	12.77	13.65	15.79	13.74	13.65	16.96	16.88
MW-102	717.82	7.2	5.91	5.22	6.31	8.51	5.6	4.96	9.79	9.59
MW-103	716.72	6.04	4.77	4.05	5.12	7.34	4.28	3.51	8.6	8.37
MW-201	715.27	4.51	3.3	2.53	3.58	5.83	2.54	-	7.13	6.87
MW-202	733.39	22.49	21.69	20.89	21.74	23.73	21.71	21.6	24.65	24.41
MW-203	730.33	19.91	18.83	18.04	18.71	20.77	19.12	18.99	21.69	21.5
MW-204	722.89	12.24	11.42	10.65	11.33	13.37	11.7	11.57	14.3	14.12
MW-206	716.21	5.27	4.09	3.28	4.38	6.59	3.03	-	7.82	7.6
MW-207	716.48	5.43	4.36	3.48	4.52	6.77	3.13	2.26	7.88	7.65
MW-208	734.12	23	21.98	21.25	22.31	24.23	21.85	21.67	25.24	25.01
MW-209	714.46	4.12	3.32	2.77	3.33	5.31	3.57	3.35	6.14	6.11
MW-210	732.72	21.95	21.12	20.34	21.06	23.07	21.46	21.33	24.01	23.78
MW-212	729.09	18.76	18.03	17.32	17.91	19.96	18.21	18.04	20.77	20.69
P-211	715.87	4.31	3.52	2.64	3.2	5.5	3.7	3.37	6.6	5.96
LAKE	713.25	-	-	-	-	-	-	-	-	-
LARGE-POND	711.83	-	-	-	-	-	-	-	-	-
SMALL-POND	711.56	-	-	-	-	-	-	-	-	-

Notes:
Elevations for monitoring wells and piezometer well are depth to water below top of casing.
Elevations for lake and ponds are depth to water from top of gauge.
- - Not applicable.

TABLE 2.9

SUMMARY OF ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES - PFI (1999-2000)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*SW-1-99 (PFI)*	*SW-1-00 (PFI)*	*SW-2-99 (PFI)*	*SW-2-00 (PFI)*	*SW-3-99 (PFI)*	*SW-3-00 (PFI)*
Sample ID:		*SW-1*	*SW-1*	*SW-2*	*SW-2*	*SW-3*	*SW-3*
Sample Date:		*4/16/1999*	*5/12/2000*	*4/16/1999*	*5/12/2000*	*4/16/1999*	*5/12/2000*
Parameter	*Units*						
Volatiles							
1,1,1-Trichloroethane	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,1,2,2-Tetrachloroethane	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,1,2-Trichloroethane	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,1-Dichloroethane	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,1-Dichloroethene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dichloroethane	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dichloroethene (total)	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
1,2-Dichloropropane	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
2-Butanone (Methyl Ethyl Ketone)	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
2-Hexanone	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Acetone	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Benzene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Bromodichloromethane	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Bromoform	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Bromomethane (Methyl Bromide)	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Carbon disulfide	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Carbon tetrachloride	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Chlorobenzene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Chloroethane	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chloroform (Trichloromethane)	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Chloromethane (Methyl Chloride)	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
cis-1,3-Dichloropropene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Dibromochloromethane	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Ethylbenzene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Methylene chloride	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Styrene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Tetrachloroethene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Toluene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
trans-1,3-Dichloropropene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Trichloroethene	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Vinyl chloride	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Xylene (total)	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U

Notes:
U - Compound was analyzed for but not detected.

TABLE 2.10

SUMMARY OF ANALYTICAL RESULTS FOR SEDIMENT SAMPLES - PFI (1999-2000)
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Sample Location:		*SEDIMENT-1 (PFI)*	*SEDIMENT-2 (PFI)*	*SEDIMENT-3 (PFI)*	*SED-1 (PFI)*	*SED-2 (PFI)*	*SED-3 (PFI)*
Sample ID:		*SEDIMENT-1*	*SEDIMENT-2*	*SEDIMENT-3*	*SED-1*	*SED-2*	*SED-3*
Sample Date:		*4/16/1999*	*4/16/1999*	*4/16/1999*	*5/12/2000*	*5/12/2000*	*5/12/2000*
Parameter	*Units*						
Volatiles							
1,1,1-Trichloroethane	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/kg	20 U	20 U	20 U	20 U	20 U	20 U
2-Hexanone	ug/kg	20 U	20 U	20 U	20 U	20 U	20 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	ug/kg	20 U	20 U	20 U	20 U	20 U	37
Benzene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/kg	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/kg	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform (Trichloromethane)	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/kg	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	14
trans-1,3-Dichloropropene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/kg	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/kg	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
General Chemistry							
Percent Moisture	%	13.5	15.0	20.3	15	13	32
Total Organic Carbon (TOC)	mg/kg	390	550	100 U	-	-	-

Notes:
U - Non-detect at associated value.
- - Not applicable.

TABLE 3.1

SUMMARY OF PROPOSED INVESTIGATIVE ACTIVITIES
SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Data Gap	*Description of Data Need*	*Number and Type of Installation*
Lateral Extent of Waste and Type of Waste	• lateral extent of filling • types of fill • depth of fill	• geophysical investigation (20 acres) • 9 test trenches • 4 test pits
Surface and Subsurface Soil Quality	• surface and subsurface soil quality outside the limits of fill	• one surface soil sample and one subsurface soil sample at each new monitoring well or probe location
Leachate Quality	• impacts of infiltration on groundwater quality • evidence of leachate seeps	• hydrogeologic investigation • levee inspection
Hydrogeologic Characterization	• geologic characterization • vertical profiling • groundwater interface monitoring wells • lower aquifer water quality • source area characterization • downgradient upper aquifer water quality • downgradient lower aquifer water quality	• new monitoring wells • 5 vertical profiles • 3 new shallow wells • 3 new deep wells • 1 shallow source area well • 2 new shallow downgradient wells • 2 contingency deep wells
Surface Water and Sediment Quality	• recent data • Site drainage patterns	• 2 sediment and one surface water sample • Site survey
Landfill Gas	• off-Site migration potential	• 5 probes
Wetlands	• delineate wetlands on-Site	• wetland delineation
Geotechnical Information	• soil properties	• up to 5 samples for geotechnical analyses site survey

APPENDIX A

AERIAL PHOTOGRAPHS REVIEWED

APPENDIX A

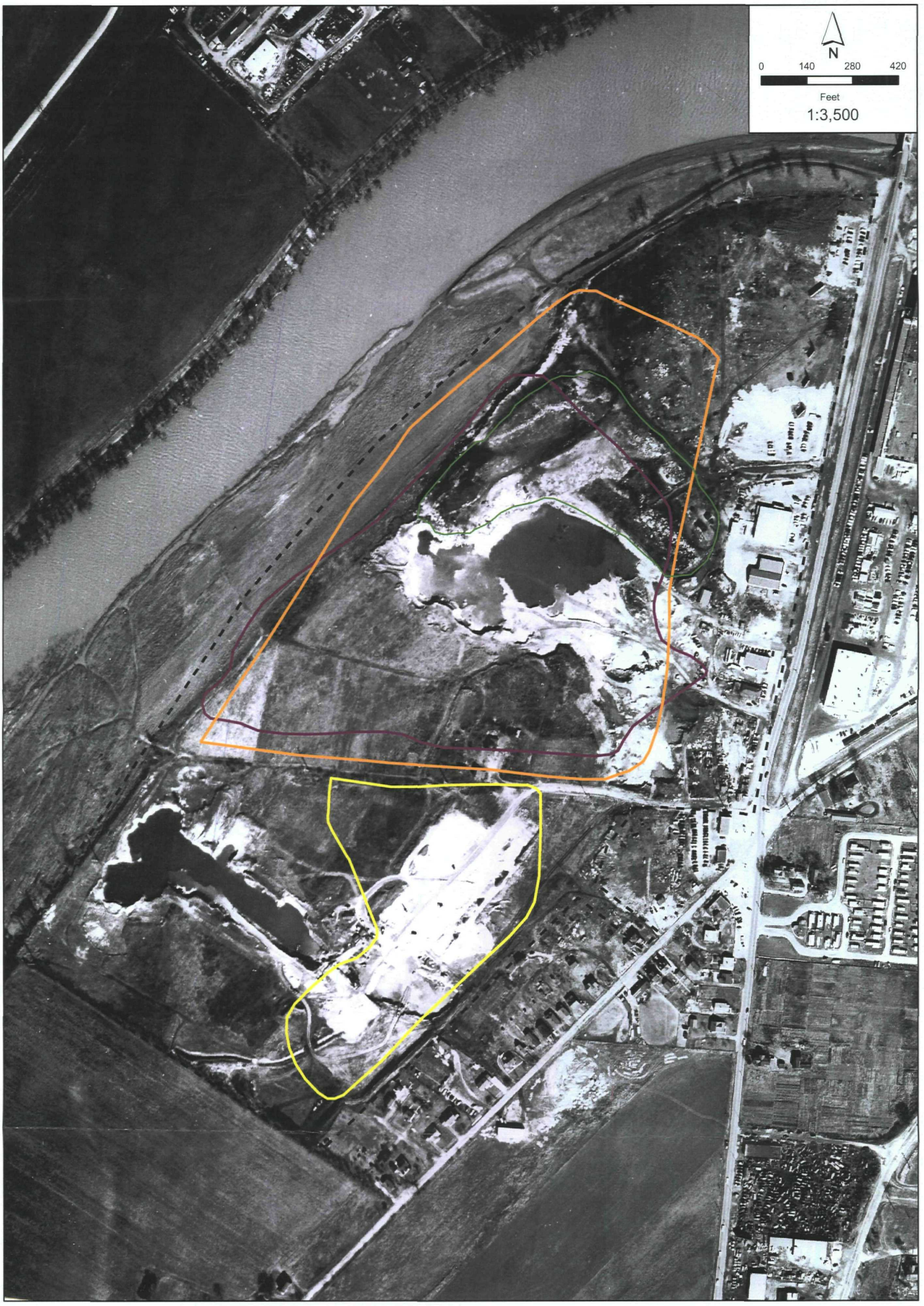
SUMMARY OF AERIAL PHOTOGRAPHS REVIEWED
SOUTH DAYTON DUMP SITE
MORAINE, OHIO

Year	*Date of Aerial Photograph*	*Approx. Scale (1" = x')*	*Source*
1936	Sep-36	265	King Visual Technology (EPA report)
1949	Oct-49	254	King Visual Technology (EPA report)
1954	Apr-54	246	King Visual Technology (EPA report)
1956	Mar-56	200	Montgomery County
1956	Mar-56	800	Ohio DOT - Office of Aerial Engineering
1957	Aug-57	800	Ohio DOT - Office of Aerial Engineering
1957	Aug-57	200	Montgomery County
1959	Nov-59	800	Ohio DOT - Office of Aerial Engineering
1960	Jun-60	536	U.S. Geological Survey (EPA report)
1964	no month	500	Historical Information Gatherers, Inc.
1968	Mar-68	1000	Ohio DOT - Office of Aerial Engineering
1968	Mar-68	250	Montgomery County
1971	Apr-71	1000	Ohio DOT - Office of Aerial Engineering
1973	Apr-73	1000	Ohio DOT - Office of Aerial Engineering
1973	Apr-73	250	Montgomery County
1973	Jun-73	396	U.S. Geological Survey (EPA report)
1973	Jul-73	100	Woolpert Geographic Information Systems
1973	Jul-73	400	Woolpert Geographic Information Systems
1974	Jul-74	100	Woolpert Geographic Information Systems
1974	Jul-74	400	Woolpert Geographic Information Systems
1974	no month	800	Historical Information Gatherers, Inc.
1975	Nov-75	500	Montgomery County
1978	Dec-78	400	Woolpert Geographic Information Systems
1979	Nov-79	6667	Ohio DOT - Office of Aerial Engineering
1981	Mar-81	400	Montgomery County
1981	May-81	244	U.S. EPA (EPA report)
1984	May-84	6667	Ohio DOT - Office of Aerial Engineering
1984	no month	500	Historical Information Gatherers, Inc.
1986	Apr-86	100	Woolpert Geographic Information Systems
1986	Apr-86	400	Woolpert Geographic Information Systems
1987	Feb-87	100	Woolpert Geographic Information Systems
1987	Feb-87	400	Woolpert Geographic Information Systems
1987	Mar-87	400	Miami Valley Regional Planning Commission
1988	Apr-88	3333	Ohio DOT - Office of Aerial Engineering
1988	Apr-88	400	U.S. Geological Survey (EPA report)
1990	Aug-90	500	Montgomery County
1991	Apr-91	100	Woolpert Geographic Information Systems
1991	Apr-91	400	Woolpert Geographic Information Systems
1993	Apr-93	400	Woolpert Geographic Information Systems
1994	Apr-94	410	U.S. Geological Survey (EPA report)
1994	Dec-94	100	Woolpert Geographic Information Systems
1994	Dec-94	400	Woolpert Geographic Information Systems

APPENDIX A

SUMMARY OF AERIAL PHOTOGRAPHS REVIEWED
SOUTH DAYTON DUMP SITE
MORAINE, OHIO

Year	*Date of Aerial Photograph*	*Approx. Scale (1" = x')*	*Source*
1994	no month	500	Historical Information Gatherers, Inc.
1995	Mar-95	400	Miami Valley Regional Planning Commission
1996	Apr-96	100	Woolpert Geographic Information Systems
1998	Aug-98	800	Ohio DOT - Office of Aerial Engineering
2000	Oct-00	408	U.S. Geological Survey (EPA report)
2000	no month	500	Historical Information Gatherers, Inc.



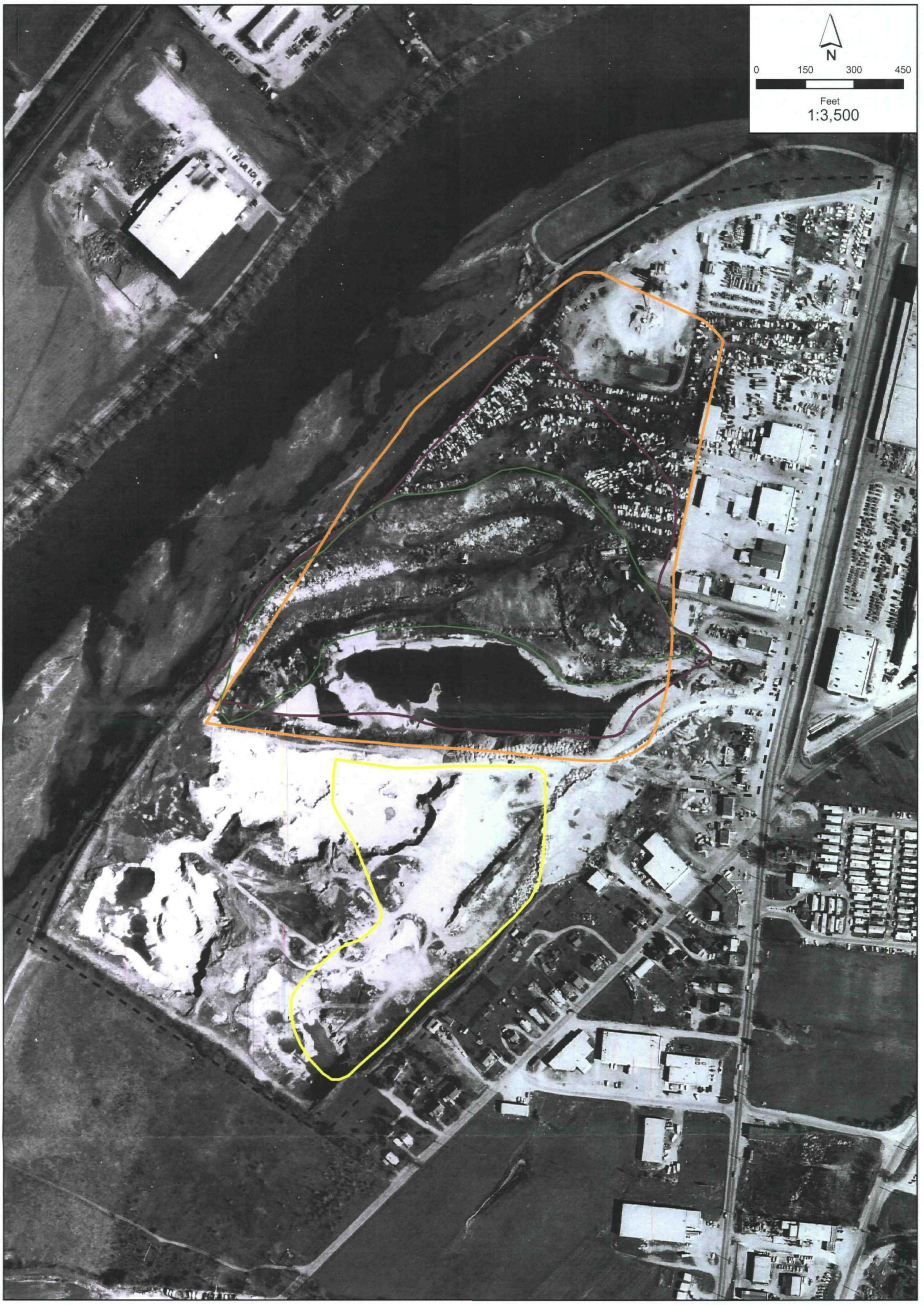
Legend

- Site Boundary (EPA 2005)
- Landfill - EPA Limits
- Landfill - CRA Limits
- Potential Fill - CRA Limits
- Disposal Area

Figure A.1
1956 AREAS OF EXCAVATION OR FILL

South Dayton Dump and Landfill Site
Moraine, Ohio

38443(LAY001)GIS-WA001 December 6, 2005



Legend

- Site Boundary (EPA 2005)
- Landfill - EPA Limits
- Landfill - CRA Limits
- Potential Fill - CRA Limits
- Disposal Area

Figure A.2
1968 AREAS OF EXCAVATION OR FILL

South Dayton Dump and Landfill Site
Moraine, Ohio

38443(LAY001)GIS-WA002 December 6, 2005

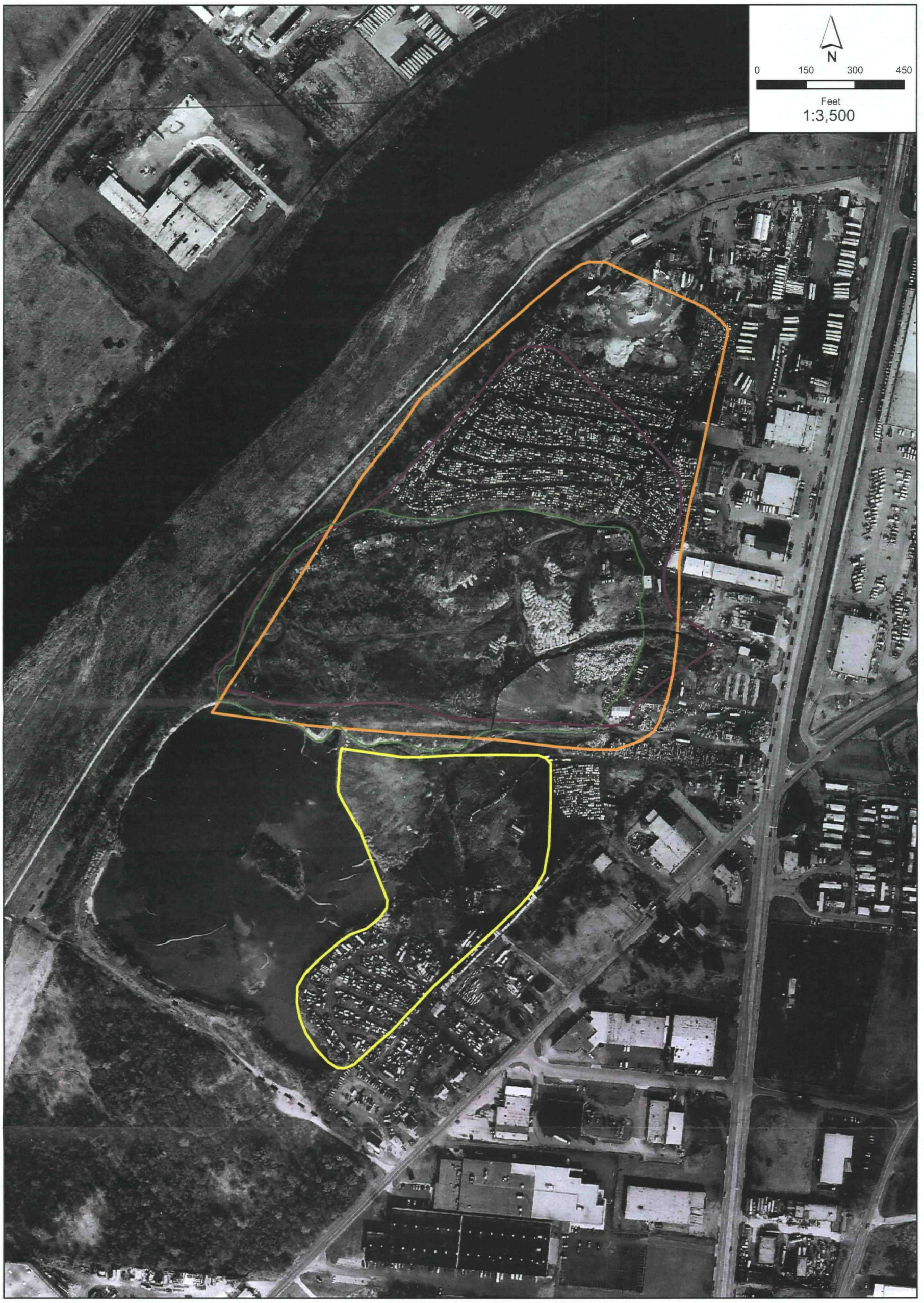
Legend

- Site Boundary (EPA 2005)
- Landfill - EPA Limits
- Landfill - CRA Limits
- Potential Fill - CRA Limits
- Disposal Area

Figure A.3
1975 AREAS OF EXCAVATION OR FILL

South Dayton Dump and Landfill Site
Moraine, Ohio

38443(LAY001)GIS-WA003 December 6, 2005



Legend

- Site Boundary (EPA 2005)
- Landfill - EPA Limits
- Landfill - CRA Limits
- Potential Fill - CRA Limits
- Disposal Area
- Trench

Figure A.4
1987 AREAS OF EXCAVATION OR FILL

South Dayton Dump and Landfill Site
Moraine, Ohio

38443(LAY001)GIS-WA004 December 6, 2005

APPENDIX B

MONITORING WELL LOGS – PSARA (1996) AND PFI (1998-1999)

DNR 7802 94
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

Permit Number _____

COUNTY MONTGOMERY TOWNSHIP MIAMI SECTION/LOT No _____ (Circle One)

OWNER/BUILDER (Circle One or Both) South Dayton Dump First Last PROPERTY ADDRESS (Address of well location) 1975 DRYDEN RD MORAINE OHIO Number Street City

LOCATION OF PROPERTY SAME AS ABOVE Zip Code + 4

CONSTRUCTION DETAILS

CASING (Length below grade) Borehole Diameter 8 1/2 in.
1 Diameter 2 in. Length 23 ft Wall Thickness Sch 40 in.
2 Diameter _____ in. Length _____ ft. Wall Thickness _____ in
Type 1 Steel 1 Galv. X PVC 1 2 Other _____
Joints: X Threaded 1 Welded 1 Solvent 1 2 Other _____
Liner: Length _____ Type _____ Wall Thickness _____ in.

SCREEN
Type (wire wrapped, louvered, etc.) _____ Material PVC
Length 10 ft. Diameter 2 in.
Set between 34 ft. and 24 ft. Slot .010

GROUT
Material Portland Neat Volume used 6 BAGS
Method of installation TREMMIE
Depth placed from 20 ft. to 1 ft

GRAVEL PACK (Filter Pack)
Material #5 SAND Volume used 3 1/2 BAGS
Method of installation GRAVITY
Depth: placed from 34 ft. to 22 ft

Pitless Device ☐ Adapter ☐ Preassembled unit
Use of Well MONITOR
☐ Rotary ☐ Cable ☒ Augered ☐ Driven ☐ Dug ☐ Other
Date of Completion 4-5-96

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.
Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.

MW# 101

From	To	
0	11	Brown Silty SANDY CLAY w/ GRAVEL
11	12	COBBLES
12	29	Brown Silty SANDY CLAY w/GRAVEL : WET
29	38	WET SANDY SILT, VERY FINE GREY SAND

BTH 38'
SET WELL AT 34'
WATER ON ROAS 18'
WATER AT COMP. 16'

*If additional space is needed to complete well log, use next consecutively numbered form.)

WELL TEST

☐ Bailing ☐ Pumping* ☐ Other _____
Test rate NA gpm Duration of test _____ hr
Drawdown _____
Measured from: ☐ top of casing ☐ ground level ☐ Other _____
Static Level (depth to water) _____ ft. Date: _____
Quality (clear, cloudy, taste, odor) _____

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

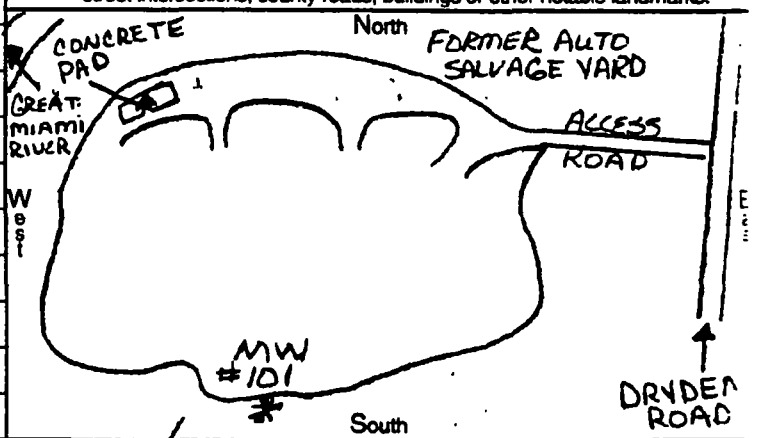
PUMP

Type of pump NA Capacity _____ gpm
Pump set at _____ ft
Pump installed by _____

WELL LOCATION

Location of well in State Plane coordinates, if available:
Zone _____ x _____ y _____
Elevation of well _____ ft./m. Datum plain: ☐NAD27 ☐NAD83
Source of coordinates: ☐GPS ☐Survey ☐Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm Jones Environmental Drilling
Signed Kay Layton
Address PO BOX 190
Date 4-22-96
City, State, Zip VERSAILLES, IN 47042
ODH Registration Number _____

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR. DIVISION OF WATER. 1939 FOUNTAIN SQ. DRIVE. COLS.. OHIO 43224

DNR 7802 94
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

Permit Number _____

COUNTY Montgomery TOWNSHIP Miami SECTION/LOT No _____ (Circle One)

OWNER/BUILDER (Circle One or Both) South Dayton Dump (First Last) PROPERTY ADDRESS (Address of well location) 1975 DRYDEN RD (Number Street) MORAINE (City)

LOCATION OF PROPERTY MORAINE OHIO Zip Code + 4

CONSTRUCTION DETAILS

CASING (Length below grade) Borehole Diameter 1 1/2 in.

1 Diameter 2 in. Length 21 ft Wall Thickness Sch 40 in.

2 Diameter _____ in. Length _____ ft Wall Thickness _____ in.

Type: 1 Steel 1 Galv. X PVC 1 2 Other _____

Joints: X Threaded 1 Welded 1 Solvent 1 2 Other _____

Liner: Length _____ Type _____ Wall Thickness _____ in.

SCREEN

Type (wire wrapped, louvered, etc.) _____ Material PVC

Length 10 ft. Diameter 2 in.

Set between 21 ft and 31 ft. Slot .010

GROUT

Material Hole plug Volume used 5 BAGS

Method of installation TRIMMIE

Depth: placed from ~~2~~ 17 ft. to 2 ft

GRAVEL PACK (Filter Pack)

Material SAND Volume used 3 1/2 bags

Method of installation GRAVITY

Depth: placed from 31 ft. to ~~2~~ 19 ft

Pitless Device ☐ Adapter ☐ Preassembled unit

Use of Well MONITOR

☐ Rotary ☐ Cable ☑ Augered ☐ Driven ☐ Dug ☐ Other _____

Date of Completion 5-7-96

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc. MW 101D

From	To	
0	2	GRAVEL BASE
2	8	BROWN SILTY SANDY CLAY
8	17	GREY SILTY CLAY
17	20	BLACK TO GREY SILTY CLAY
20	25	BROWN SAND & GRAVEL w/COBBLES
25	31	BROWN SAND & GRAVEL

WELL TEST

☐ Bailing ☐ Pumping* ☐ Other _____

Test rate NA gpm Duration of test _____ hr

Drawdown _____

Measured from: ☐ top of casing ☐ ground level ☐ Other _____

Static Level (depth to water) _____ ft. Date: _____

Quality (clear, cloudy, taste, odor) _____

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

Type of pump NA Capacity _____ gpm

Pump set at _____ ft

Pump installed by _____

WELL LOCATION

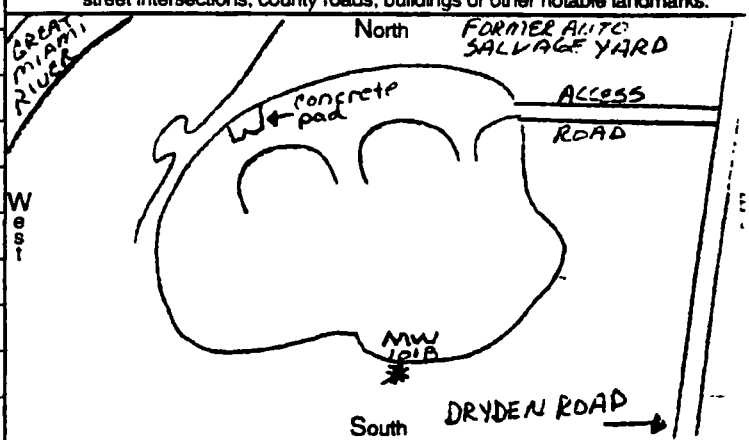
Location of well in State Plane coordinates, if available:

Zone _____ x _____ y _____

Elevation of well _____ ft./m. Datum plain: ☐ NAD27 ☐ NAD83

Source of coordinates: ☐ GPS ☐ Survey ☐ Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



additional space is needed to complete well log, use next consecutively numbered form.)

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm Jones Environmental Drilling, Inc. Signed Terry L Wilson

Address PO Box 190 Date 5-16-96

City, State, Zip VERSAILLES, INDIANA 47042 ODH Registration Number _____

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

DNR 7802 94
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

Permit Number _____

COUNTY MONTGOMERY TOWNSHIP MIAMI SECTION/LOT No _____ (Circle One)

OWNER/BUILDER (Circle One or Both) SOUTH DAYTON NURS First Last PROPERTY ADDRESS (Address of well location) 1975 DEWDALE DR. MORAINE OH Number Street City

LOCATION OF PROPERTY DAYTON-CINN MORAINE OHIO Zip Code + 4

CONSTRUCTION DETAILS

CASING *(Length below grade) Borehole Diameter 4 1/2 in.
1 Diameter 2 in. Length 23 ft. Wall Thickness SCH40 in.
2 Diameter _____ in Length _____ ft. Wall Thickness _____ in.
Type: 1 Steel 1 Galv. X PVC 1 2 Other _____
Joints: X Threaded 1 Welded 1 Solvent 1 2 Other _____
Liner: Length _____ Type _____ Wall Thickness _____ in.

SCREEN
Type (wire wrapped, louvered, etc.) _____ Material PVC
Length 10 ft. Diameter 2 in.
Set between 30 ft. and 20 ft. Slot .010

GROUT
Material PORTLAND CEMENT Volume used 5 BAGS
Method of installation TRIMMIE
Depth: placed from 14 ft. to 1 ft

GRAVEL PACK (Filter Pack)
Material #5 SAND Volume used 3 1/2 BAGS
Method of installation GRAVITY
Depth: placed from 30 ft. to 18 ft

Pitless Device ☐ Adapter ☐ Preassembled unit
Use of Well MONITOR
☐ Rotary ☐ Cable ☒ Augered ☐ Driven ☐ Dug ☐ Other _____
Date of Completion 4-8-96

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.
Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.

MW #102

From	To	
0	10	Brown Silty Clay w/GRAVEL
10	15	Brown Silty to Sandy wet clay
15	32	and & Gravel, coarse Gravel w/COBBLES

BTH 32'
SET WELL AT 30'
WATER ON RODS 15'
WATER AT COMP. 10'

*(If additional space is needed to complete well log, use next consecutively numbered form.)

WELL TEST

☐ Bailing ☐ Pumping* ☐ Other _____
Test rate NA gpm Duration of test _____ hrs
Drawdown _____ ft
Measured from: ☐ top of casing ☐ ground level ☐ Other _____
Static Level (depth to water) _____ ft. Date: _____
Quality (clear, cloudy, taste, odor) _____

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

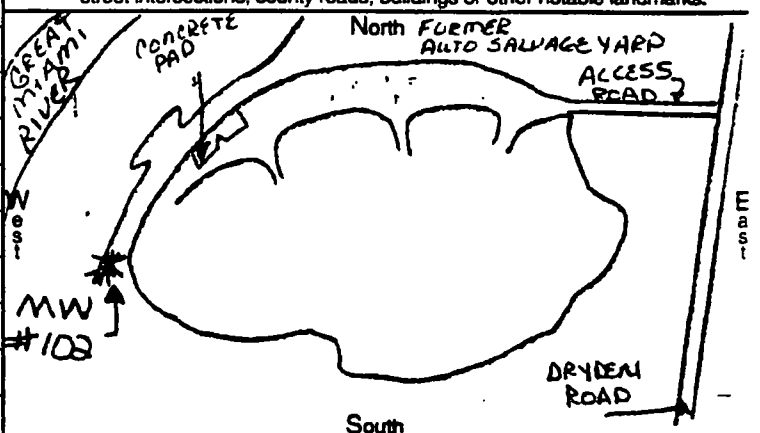
PUMP

Type of pump NA Capacity _____ gpm
Pump set at _____ ft
Pump installed by _____

WELL LOCATION

Location of well in State Plane coordinates, if available:
Zone _____ x _____ y _____
Elevation of well _____ ft./m. Datum plane: ☐NAD27 ☐NAD83
Source of coordinates: ☐GPS ☐Survey ☐Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



Drilling Firm Jones Environmental Drilling
Address PO Box 190
City, State, Zip VERSAILLES, IN 47042

I hereby certify the information given is accurate and correct to the best of my knowledge
Signed Gary Taylor
Date 4-22-96
ODH Registration Number _____

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.
ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

DNR 7802 94
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Division of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

Permit Number _____

COUNTY MIAMI TOWNSHIP MIAMI SECTION/LOT No. _____ (Circle One)

OWNER/BUILDER (Circle One or Both) South Dayton Dump PROPERTY ADDRESS (Address of well location) 1975 DAYTON RD. (Number) (Street) WEST MILTON (City)

LOCATION OF PROPERTY PARCEL ON THE NORTH SIDE Zip Code + 4

CONSTRUCTION DETAILS

CASING *(Length below grade)* Borehole Diameter 4 1/2 in

1 Diameter 2 in. Length 23 ft. Wall Thickness Sch40 in.

2 Diameter _____ in. Length _____ ft Wall Thickness _____ in.

Type: 1 Steel 1 Galv X PVC 1 2 Other _____

Joints X Threaded 1 Welded 1 Solvent 1 2 Other _____

Liner: Length _____ Type _____ Wall Thickness _____ in.

SCREEN

Type (wire wrapped, louvered, etc.) _____ Material PVC

Length 10 ft. Diameter 2 in.

Set between 32 ft. and 22 ft. Slot .010

GROUT

Material Hydrated Bent. Volume used 5 BAGS

Method of installation TREMMIE

Depth: placed from 16 ft. to 1 ft

GRAVEL PACK (Filter Pack)

Material #1 SAND Volume used 5 1/2 BAGS

Method of installation GRAVITY

Depth: placed from 32 ft. to 20 ft.

Pitless Device ☐ Adapter ☐ Preassembled unit

Use of Well MONITOR

☐ Rotary ☐ Cable ☒ Augered ☐ Driven ☐ Dug ☐ Other _____

Date of Completion 4-9-96

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

MW #103

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.

From	To	
0	2	GRAVEL BASE
2	8	Clay; Brown Silty Sandy
8	17	Black to Grey Silty Clay
		Black to GREY SILTY
17	20	CLAY-LESS SILTY
		Brown SAND & GRAVEL
20	25	w/Cobbles: WET
		Brown Sand & GRAVEL
25	27	w/Cobbles: WET
		Brown Sand & GRAVEL
27	32	w/Cobbles: WET
		BTH 32'
		WATER ON RODS 20'
		WATER AT COMP. 18'

*If additional space is needed to complete well log, use next consecutively numbered form.)

WELL TEST

☐ Bailing ☐ Pumping* ☐ Other _____

Test rate NA gpm Duration of test _____ hrs

Drawdown _____ ft

Measured from: ☐ top of casing ☐ ground level ☐ Other _____

Static Level (depth to water) _____ ft. Date: _____

Quality (clear, cloudy, taste, odor) _____

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

Type of pump NA Capacity _____ gpm

Pump set at _____ ft

Pump installed by _____

WELL LOCATION

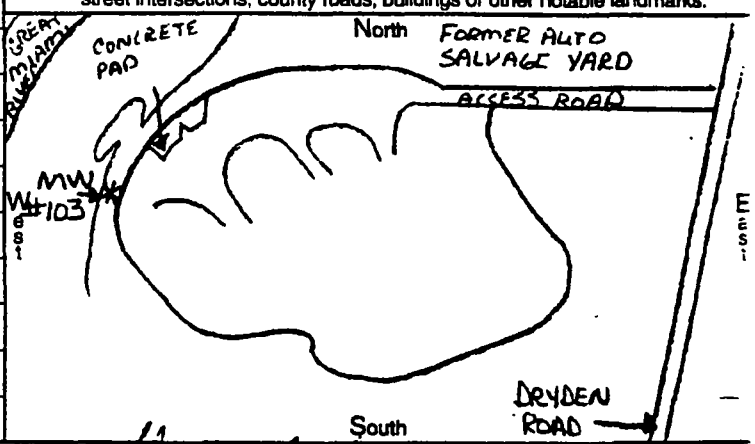
Location of well in State Plane coordinates, if available:

Zone _____ x _____ y _____

Elevation of well _____ ft./m. Datum plain: ☐ NAD27 ☐ NAD83

Source of coordinates: ☐ GPS ☐ Survey ☐ Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



I hereby certify the information given is accurate and correct to the best of my knowledge

Signed Mary Taylor

Date 4-22-96

..ng Firm Jones Environmental Drilling

Address PO Box 190

City, State, Zip VERSAILLES, IN 47042

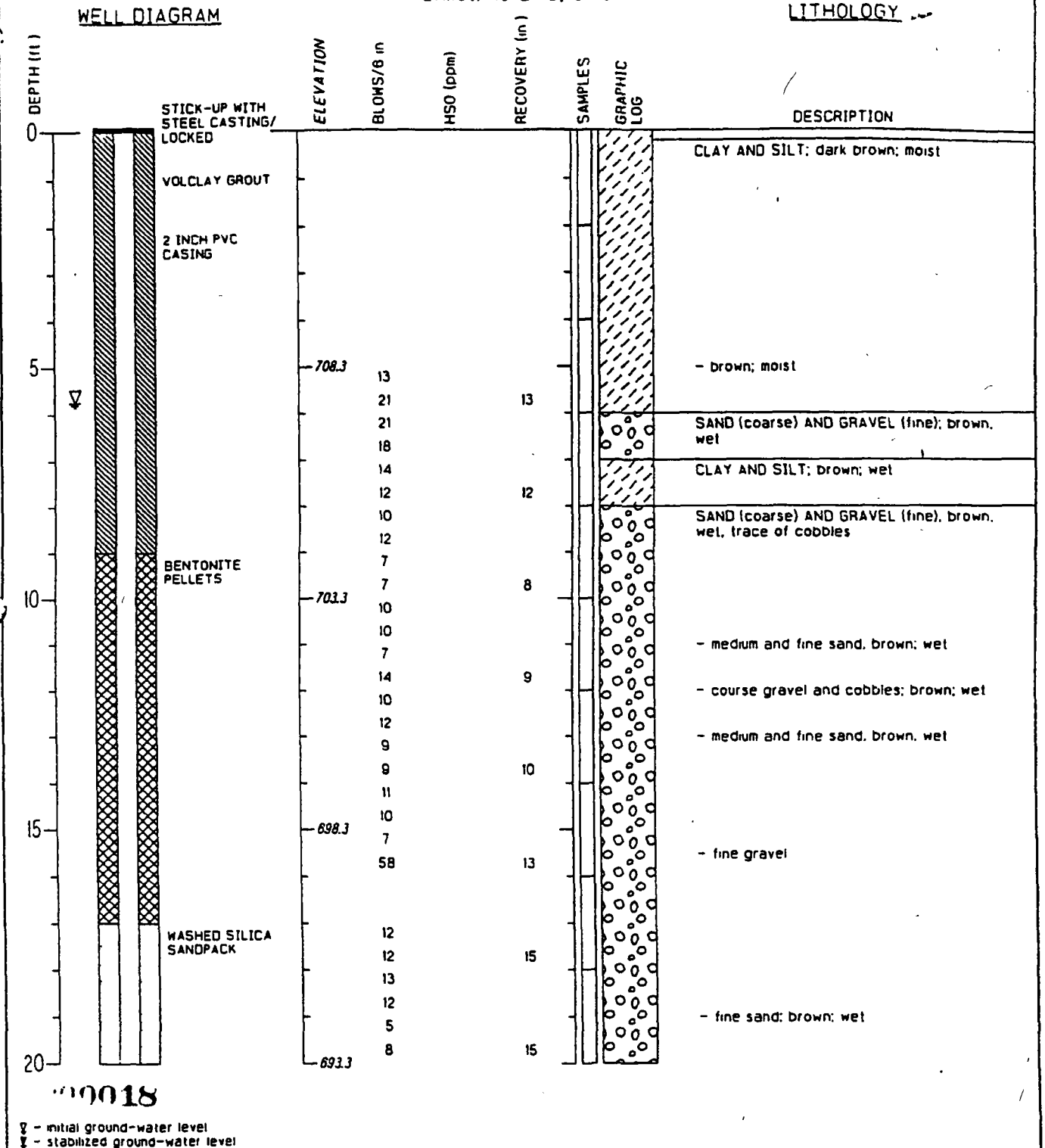
ODH Registration Number _____

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

LOG OF BORING .W-201

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *32.0*
DATE STARTED: *05/21/98*
DATE FINISHED: *05/21/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

GS ELEVATION (MSL): *713.3*
TOP OF CASING (MSL): *715.27*
WELL DEVELOPED: *05/21/98*

DATE PRINTED: *06/25/1998*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING .W-201

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

LITHOLOGY

DEPTH (ft)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		11					
		13					
		5					
		12		15			- medium and course sand, fine gravel and cobbles; wet
		17					
		13					
		10					
		20		17			
		14					
		17					
25	688.3	6					
		10		18			
		15					
		17					
		8					
		11		17			
		13					
		17					
30	683.3	8					
		12		20			
		16					
		18					
35	678.3						
40	673.3						

2 INCH PVC SLOTTED SCREEN

Boring terminated at 32.0 feet

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *32.0*
DATE STARTED: *05/21/98*
DATE FINISHED: *05/21/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

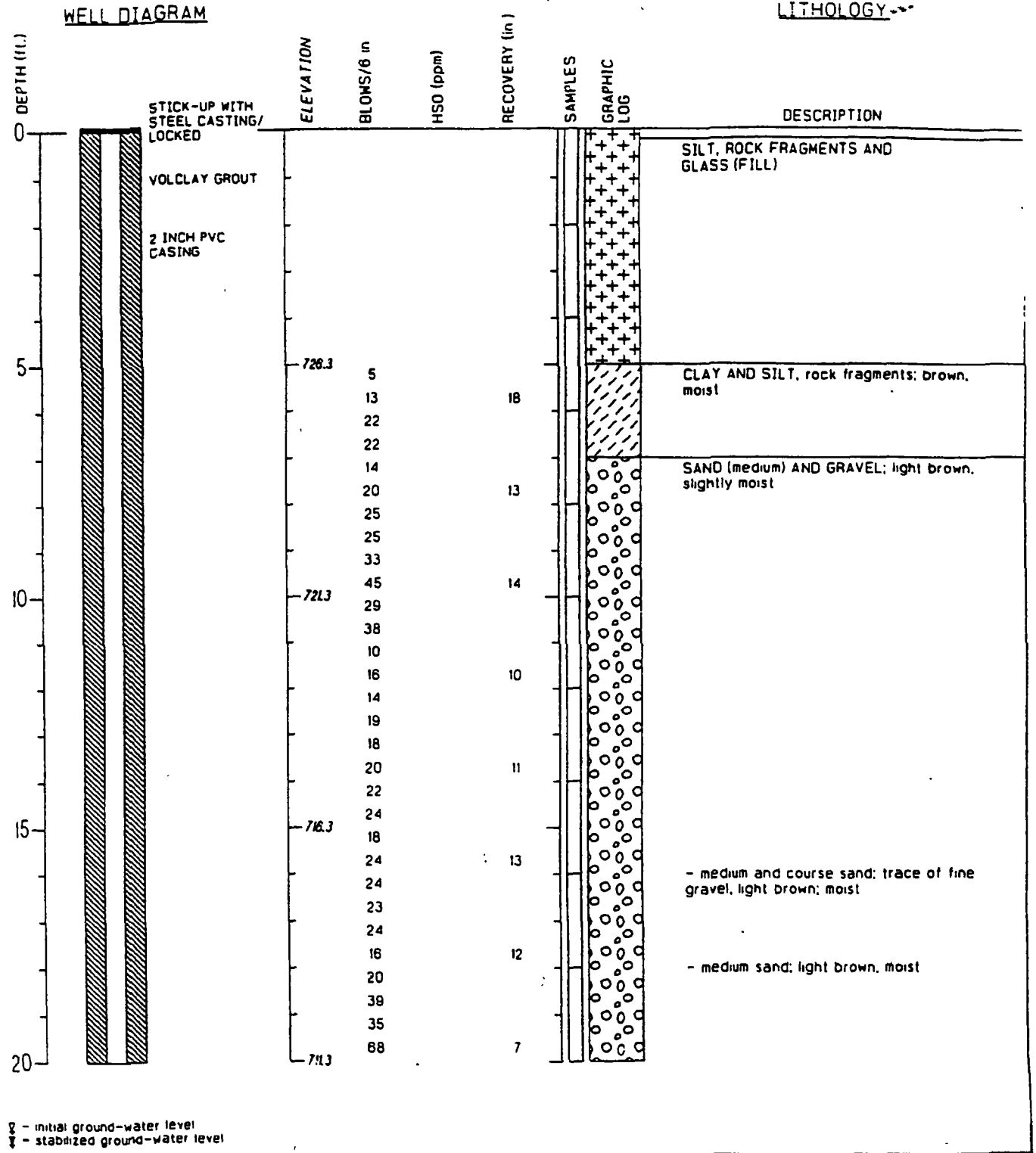
GS ELEVATION (MSL): *713.3*
TOP OF CASING (MSL): *715.27*
WELL DEVELOPED: *05/21/98*

DATE PRINTED: *06/25/1998*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-202

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *41.0*
DATE STARTED: *05/21/98*
DATE FINISHED: *05/21/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

GS ELEVATION (MSL): *731.3*
TOP OF CASING (MSL): *733.39*
WELL DEVELOPED: *05/21/98*

DATE PRINTED: *06/25/1998*

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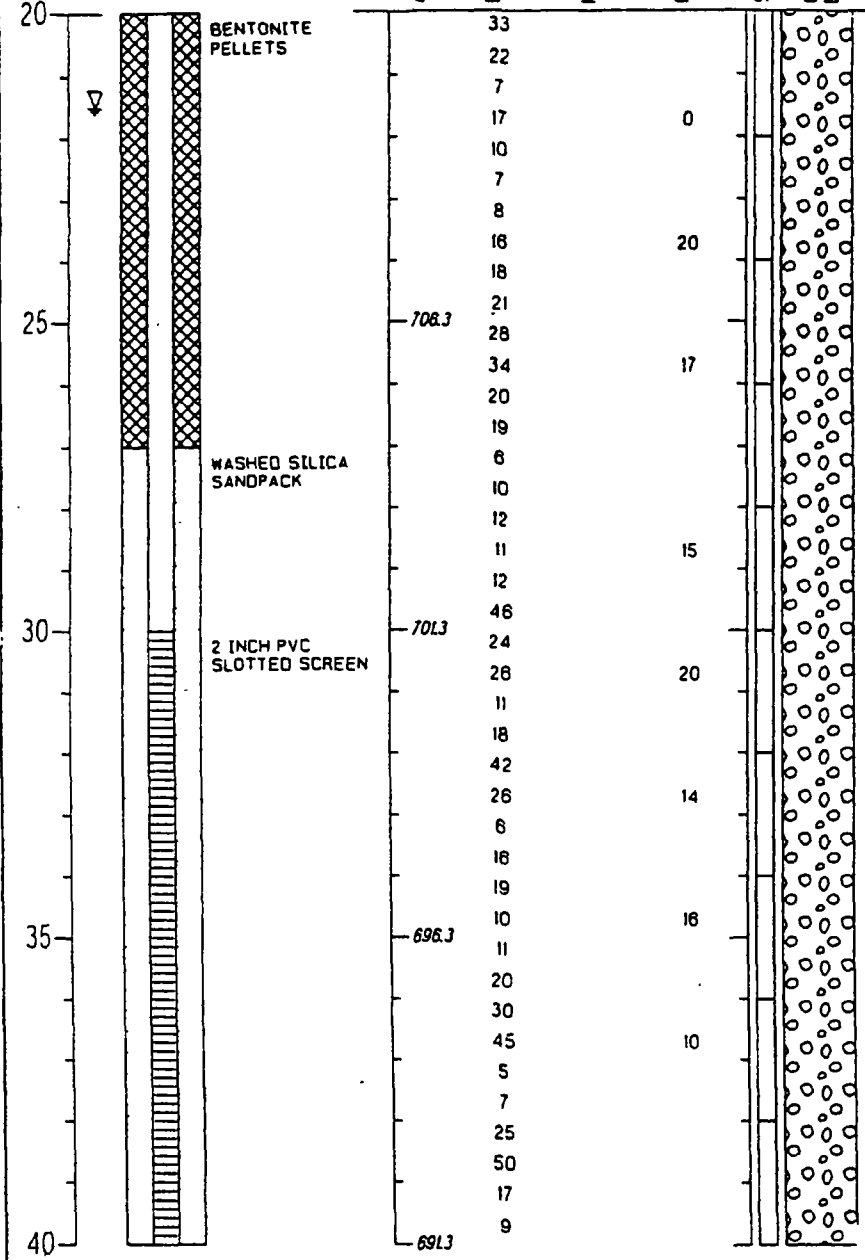
Environmental Consultants
Cincinnati, Ohio

000020

LOG OF BORING MW-202

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *41.0*
DATE STARTED: *05/21/98*
DATE FINISHED: *05/21/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

GS ELEVATION (MSL): *731.3*
TOP OF CASING (MSL): *733.39*
WELL DEVELOPED: *05/21/98*

DATE PRINTED: *06/25/1998*

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Cincinnati, Ohio

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LOG OF BORING MW-202

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
40		14 28					Boring terminated at 41.0 feet
45	688.3						
50	681.3						
55	676.3						
60	671.3						

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *41.0*
DATE STARTED: *05/21/98*
DATE FINISHED: *05/21/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

GS ELEVATION (MSL): *731.3*
TOP OF CASING (MSL): *733.39*
WELL DEVELOPED: *05/21/98*

DATE PRINTED: *06/25/1998*

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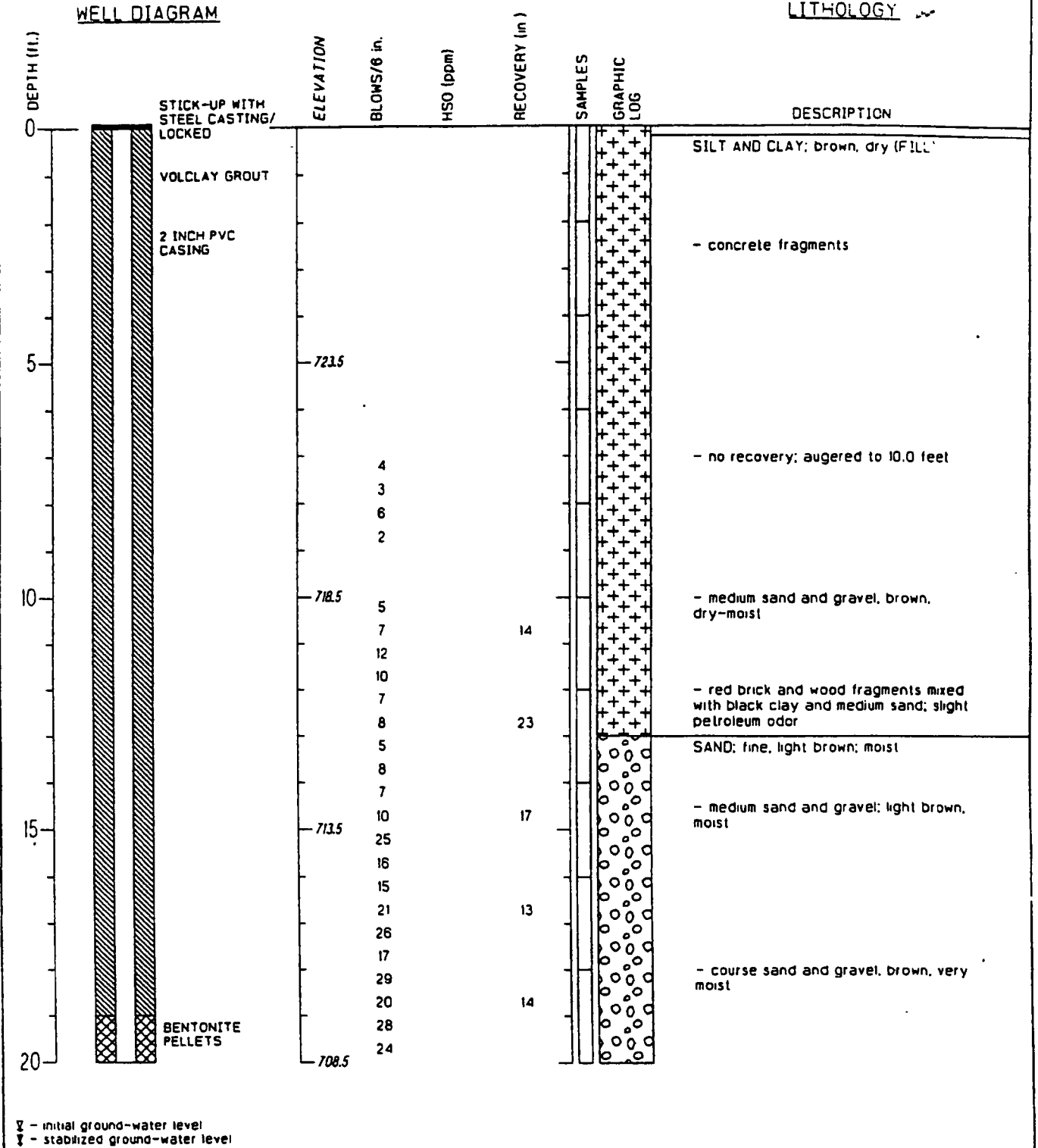
Cincinnati, Ohio

LOG OF BORING MW-203

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ – initial ground-water level
▼ – stabilized ground-water level

TOTAL DEPTH (Ft.): *38.0*
DATE STARTED: *05/21/98*
DATE FINISHED: *05/21/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

GS ELEVATION (MSL): *728.5*
TOP OF CASING (MSL): *730.33*
WELL DEVELOPED: *05/21/98*

DATE PRINTED: *06/25/1998*

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Cincinnati, Ohio

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LOG OF BORING MW-203

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		20					- wet
		25		15			
		29					
		19					
		15					
		37		12			- clay lamanations, wet
		34					
		24					
		20					
		10		14			
25	703.5	40					- yellowish orange
		75					
		8					- course sand and gravel; tellowish orange; wet
		12		15			
		23					
		24					
		11					- medium sand; trace of gravel; yellowish orange
		11		18			- course sand and gravel; gray; wet
		10					
		12					
30	698.5	11					
		17		13			
		18					
		15					
		11					
		13		14			- black course sand and gravel; slight petroleum odor
		12					
		14					
		14					- medium sand and gravel, gray; wet
		13		17			
35	693.5	16					
		25					
		17					
		23					
		27					
		25					
40	688.5						Boring terminated at 38.0 feet

WASHED SILICA SANDPACK

2 INCH PVC SLOTTED SCREEN

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *38.0*
DATE STARTED: *05/21/98*
DATE FINISHED: *05/21/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

GS ELEVATION (MSL): *728.5*
TOP OF CASING (MSL): *730.33*
WELL DEVELOPED: *05/21/98*

DATE PRINTED: *06/25/1998*

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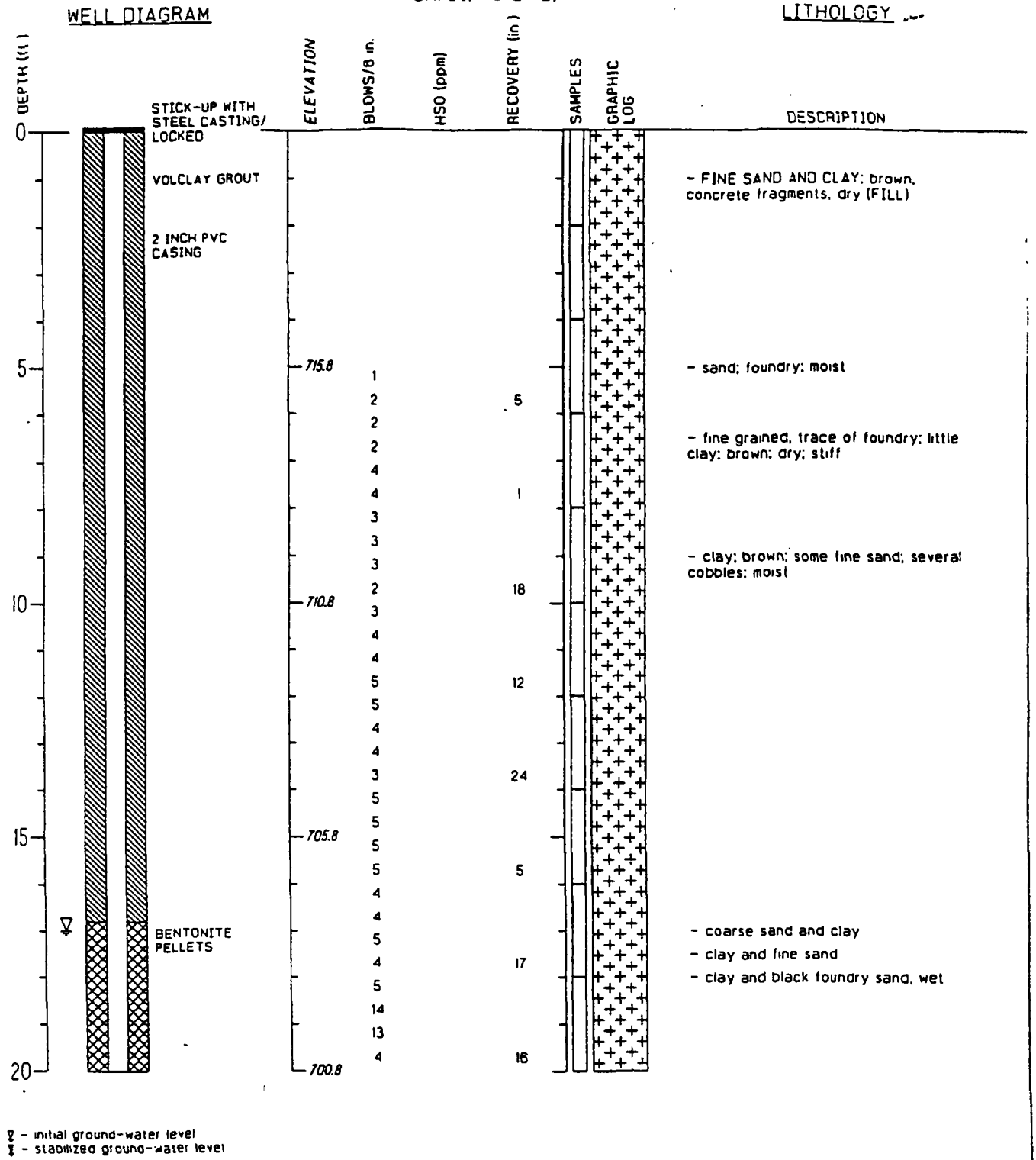
Environmental Consultants
Cincinnati, Ohio

000024

LOG OF BORING MW-204

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *33.0*
DATE STARTED: *05/19/98*
DATE FINISHED: *05/19/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO. *0279.44.07*

GS ELEVATION (MSL): *720.8*
TOP OF CASING (MSL): *722.89*
WELL DEVELOPED: *05/19/98*

DATE PRINTED: *06/25/1998*

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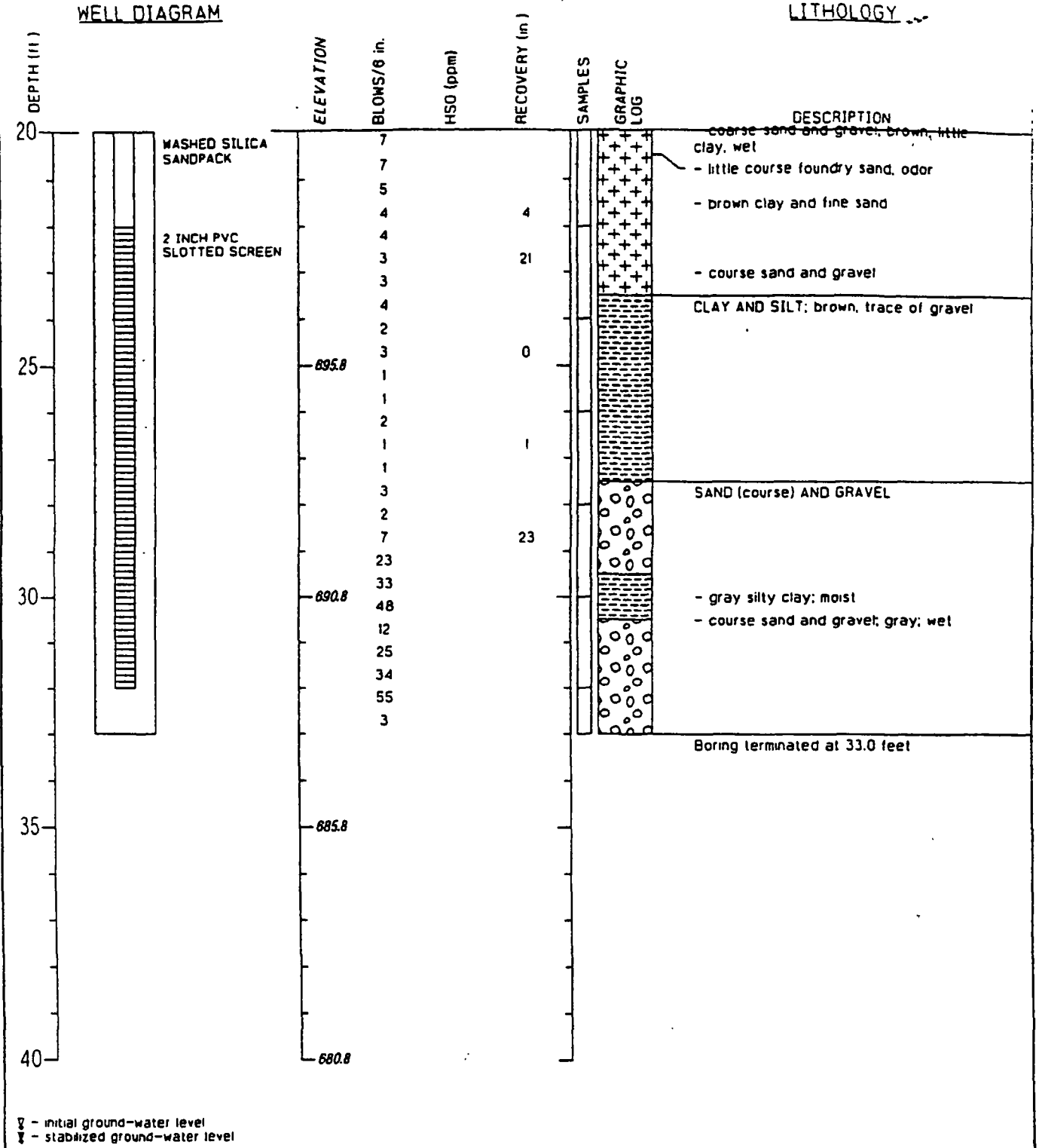
Cincinnati, Ohio

LOG OF BORING MW-204

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *33.0*
DATE STARTED: *05/19/98*
DATE FINISHED: *05/19/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

GS ELEVATION (MSL): *720.8*
TOP OF CASING (MSL): *722.89*
WELL DEVELOPED: *05/19/98*

DATE PRINTED: *06/25/1998*

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Cincinnati, Ohio

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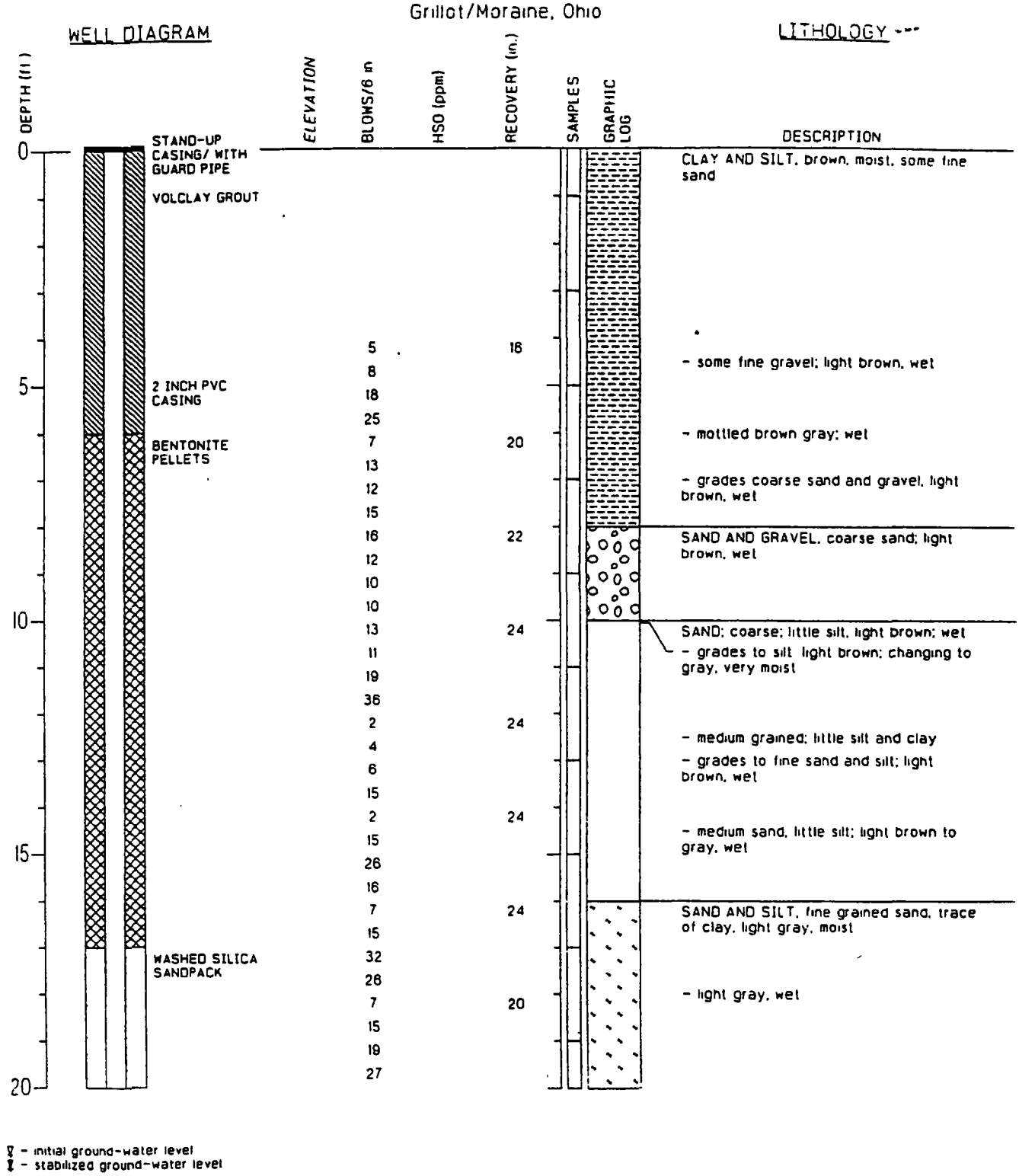
LOG OF BORING MW-206

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *33.0*
DATE STARTED: *02/11/99*
DATE FINISHED: *02/11/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

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Cincinnati, Ohio

000027

LOG OF BORING MW-206

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		6		20			- light brown; moist
		12					- 3 inches of silt; light brown; moist
		24					- medium grained sand; light brown
		28					
		3		24			SAND, medium grained, grades to coarse, light brown, wet
		3					
		9					
		22					- fine and coarse sand, light brown, wet
		15		24			
25		18					
		28					
		26					
		15		24			
		26					
		36					
		34					
30							
35							
40							

2 INCH PVC SLOTTED SCREEN

Boring terminated at 33.0 feet

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *33.0*
DATE STARTED: *02/11/99*
DATE FINISHED: *02/11/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

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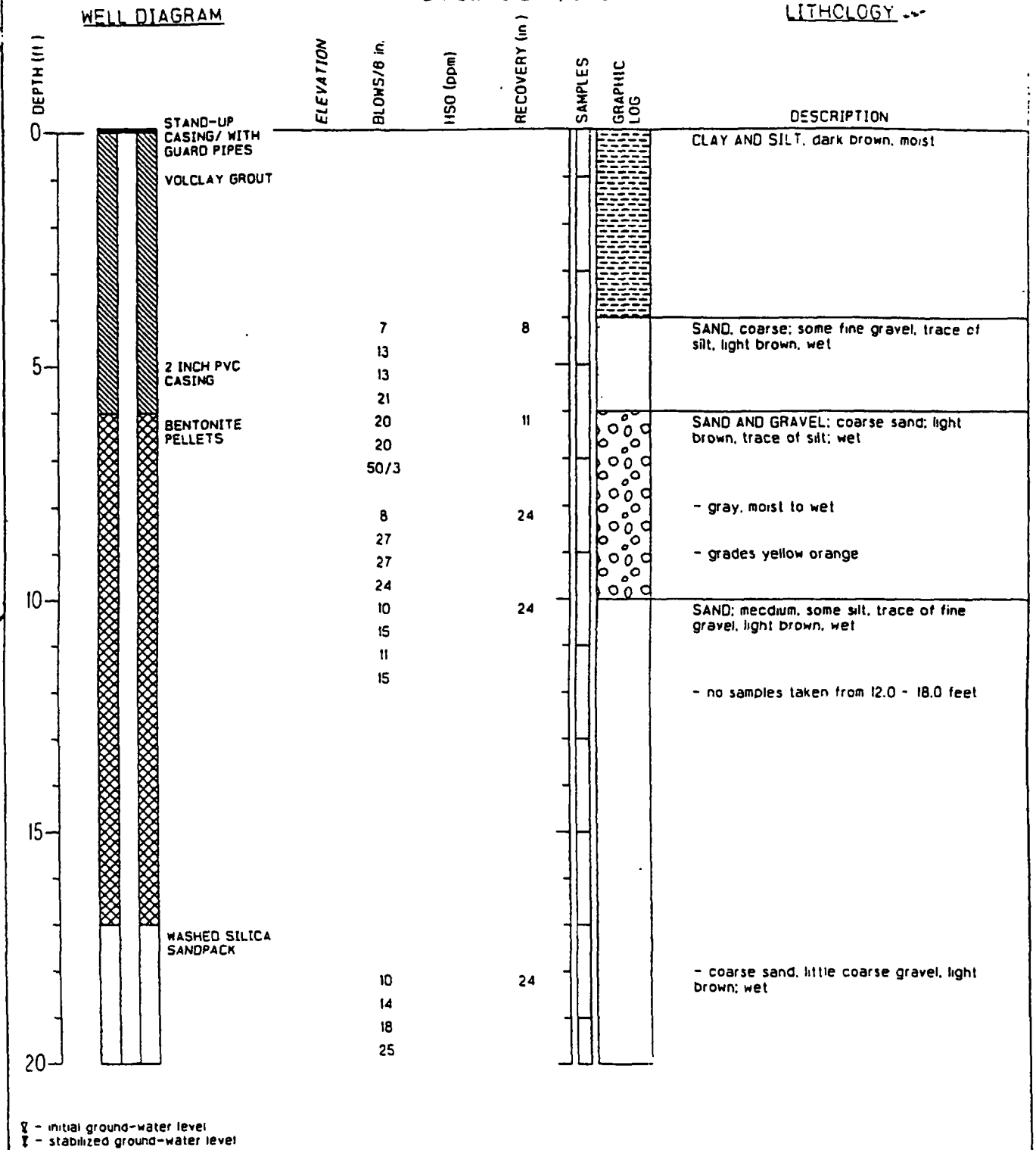
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-207

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): 34.0
DATE STARTED: 02/11/99
DATE FINISHED: 02/11/99
GEOLOGIST: Mark E. Berkich
PROJECT NO: 0279.44.05

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: 03/03/1999

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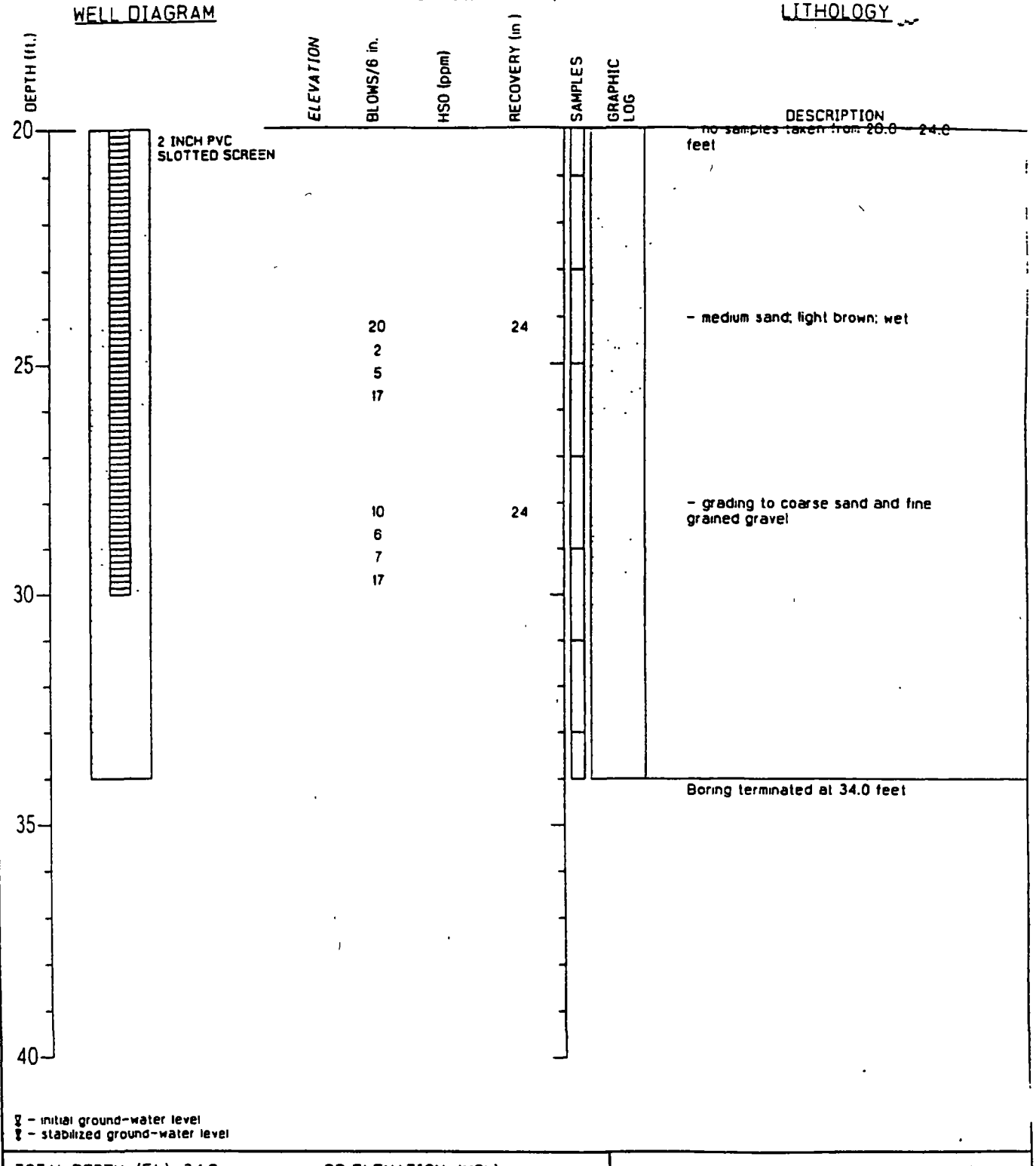
LOG OF BORING MW-207

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ – initial ground-water level
▼ – stabilized ground-water level

TOTAL DEPTH (Ft.): *34.0*
DATE STARTED: *02/11/99*
DATE FINISHED: *02/11/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

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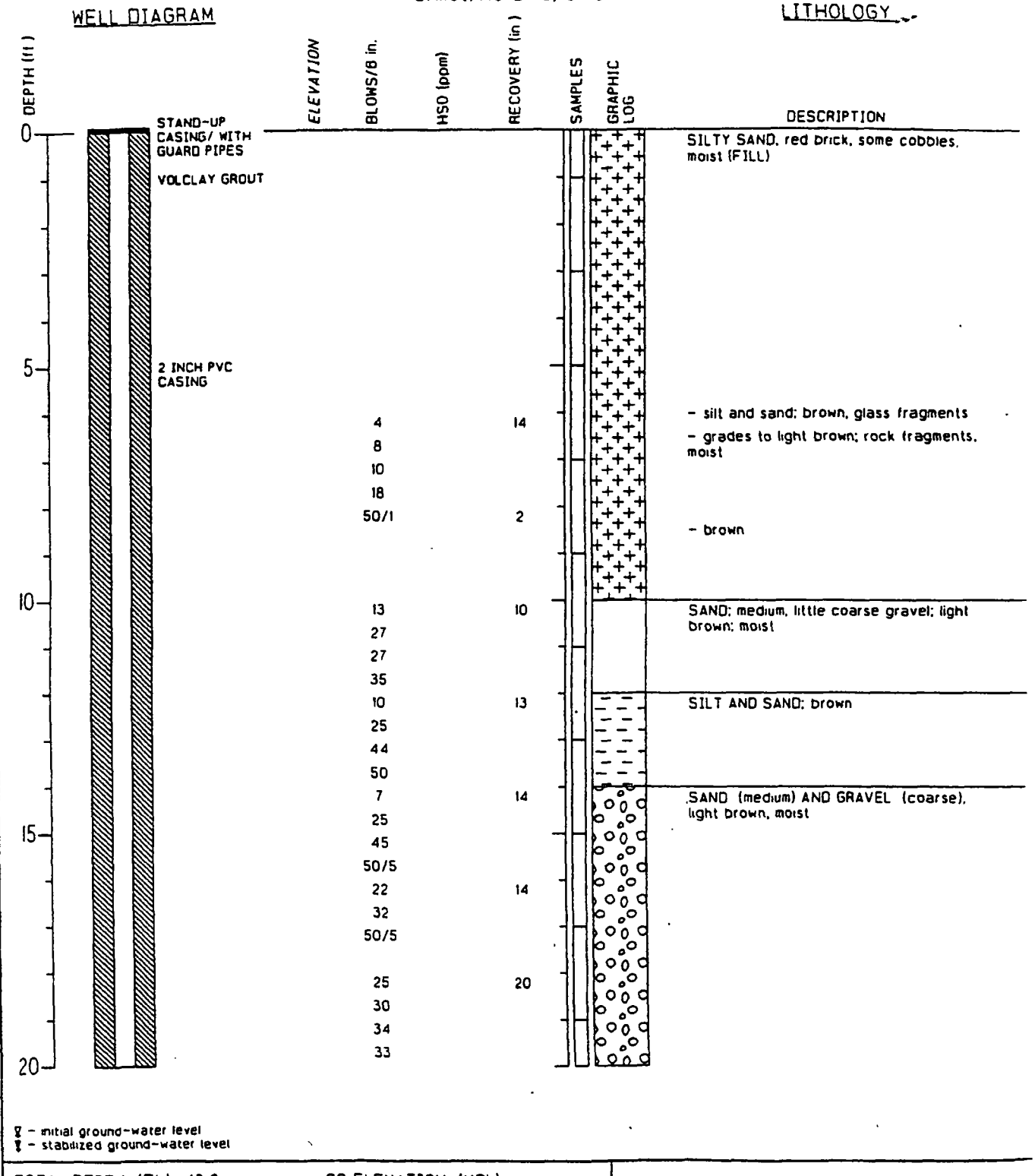
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-208

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ – initial ground-water level
▼ – stabilized ground-water level

TOTAL DEPTH (Ft.): *43.0*
DATE STARTED: *02/09/99*
DATE FINISHED: *02/09/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

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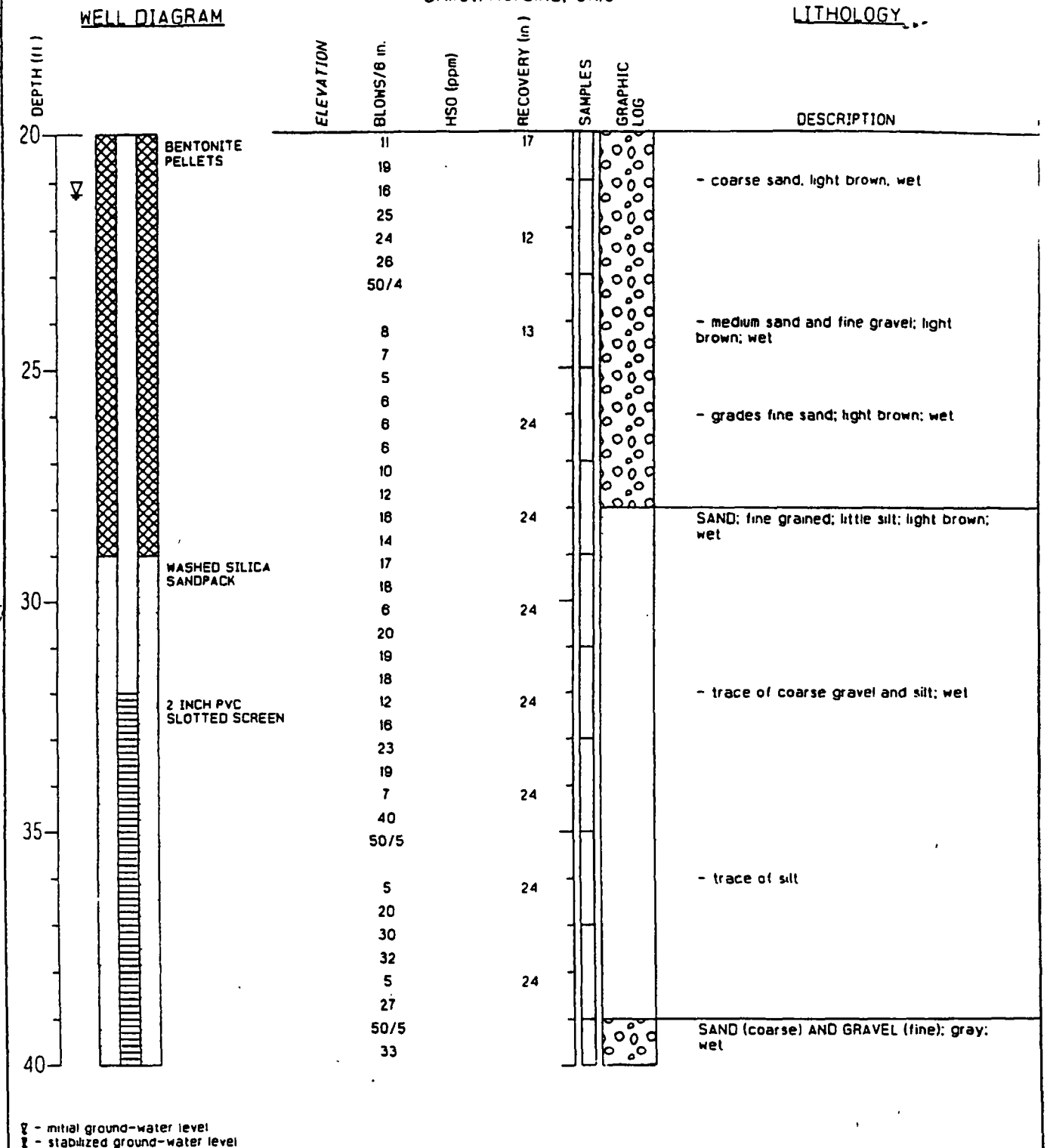
Cincinnati, Ohio

LOG OF BORING MW-208

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *43.0*
DATE STARTED: *02/09/99*
DATE FINISHED: *02/09/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

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LOG OF BORING MW-208

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

LITHOLOGY

DEPTH (ft)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in)	SAMPLES	GRAPHIC LOG	DESCRIPTION
40		50/3		24			SAND, fine grained; light brown.
							Boring terminated at 43.0 feet
45							
50							
55							
60							

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *43.0*
DATE STARTED: *02/09/99*
DATE FINISHED: *02/09/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

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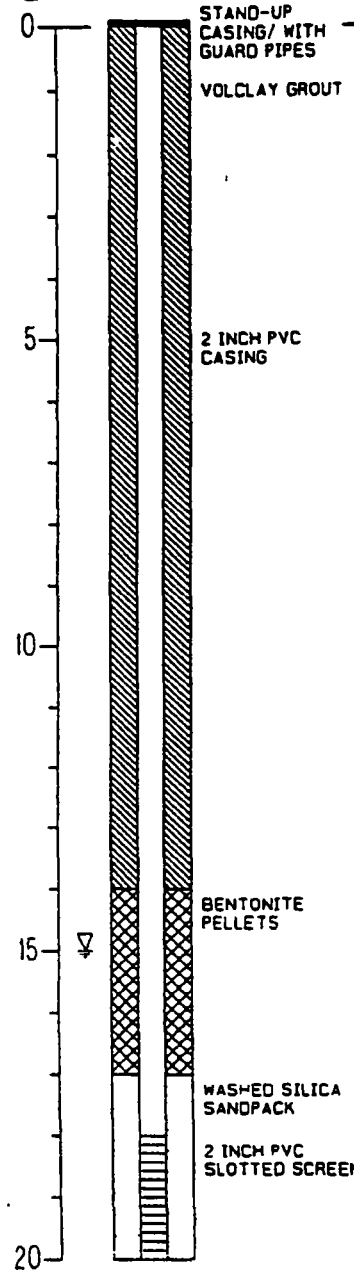
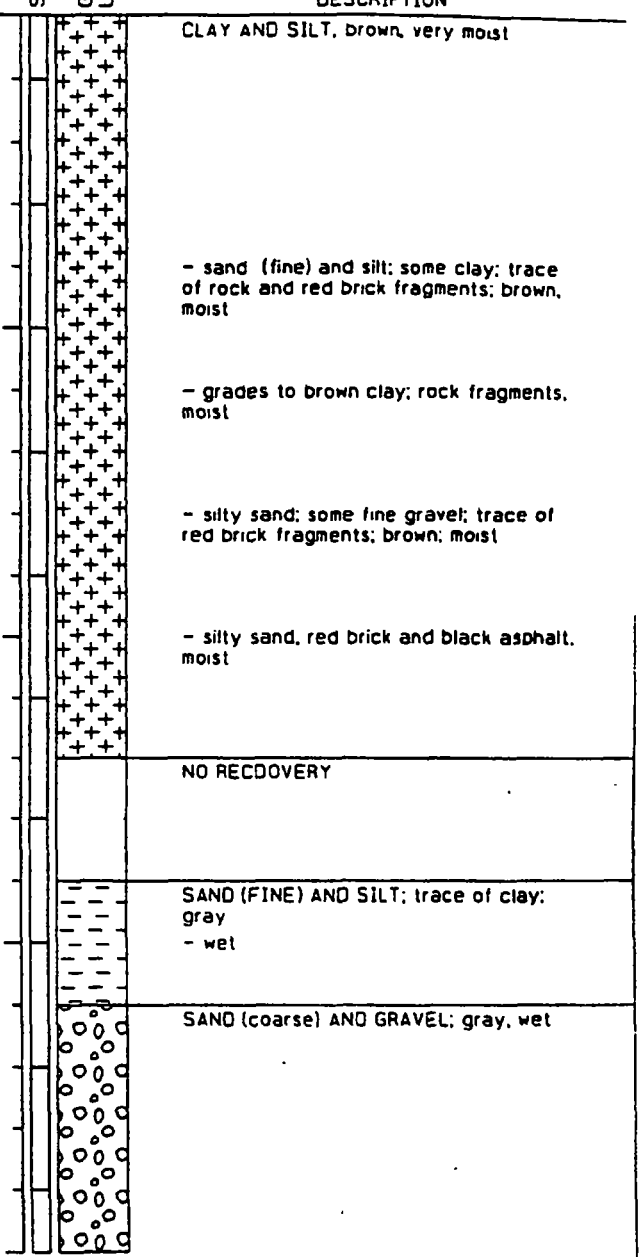
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-209

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio





▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *26.0*
DATE STARTED: *02/15/99*
DATE FINISHED: *02/15/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

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Cincinnati, Ohio

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LOG OF BORING MW-209

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

DEPTH (ft.)	ELEVATION	BLOWS/6 in	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		50/2		5			
		7		20			- light gray - some silt
		6					
		12					
		27					
		17		24			- light gray, wet
25		15					
		24					
		24					
							Boring terminated at 26.0 feet
30							
35							
40							

LITHOLOGY

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *26.0*
DATE STARTED: *02/15/99*
DATE FINISHED: *02/15/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

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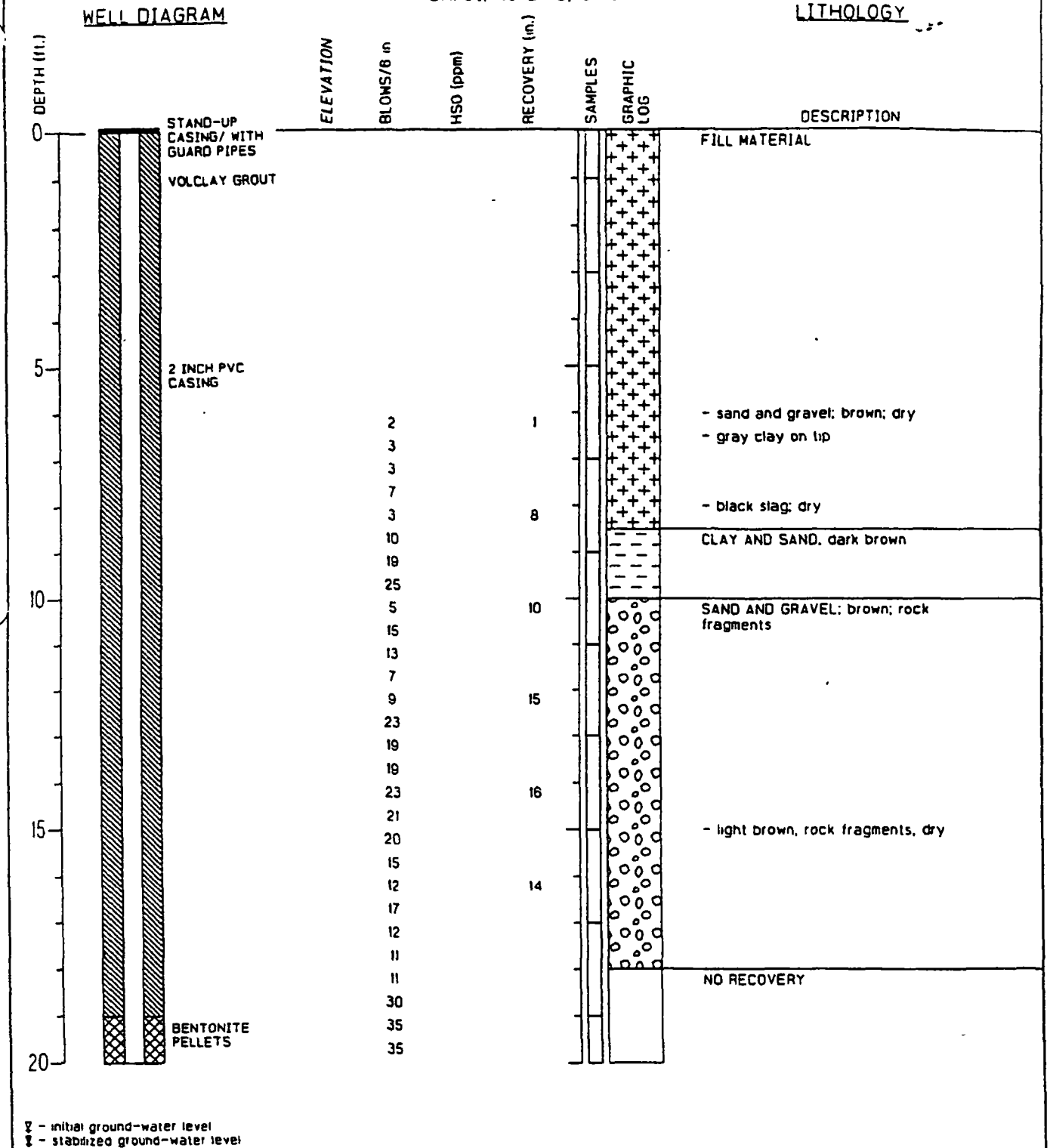
Cincinnati, Ohio

LOG OF BORING MW-210

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *36.5*
DATE STARTED: *02/08/99*
DATE FINISHED: *02/08/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

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Environmental Consultants
Cincinnati, Ohio

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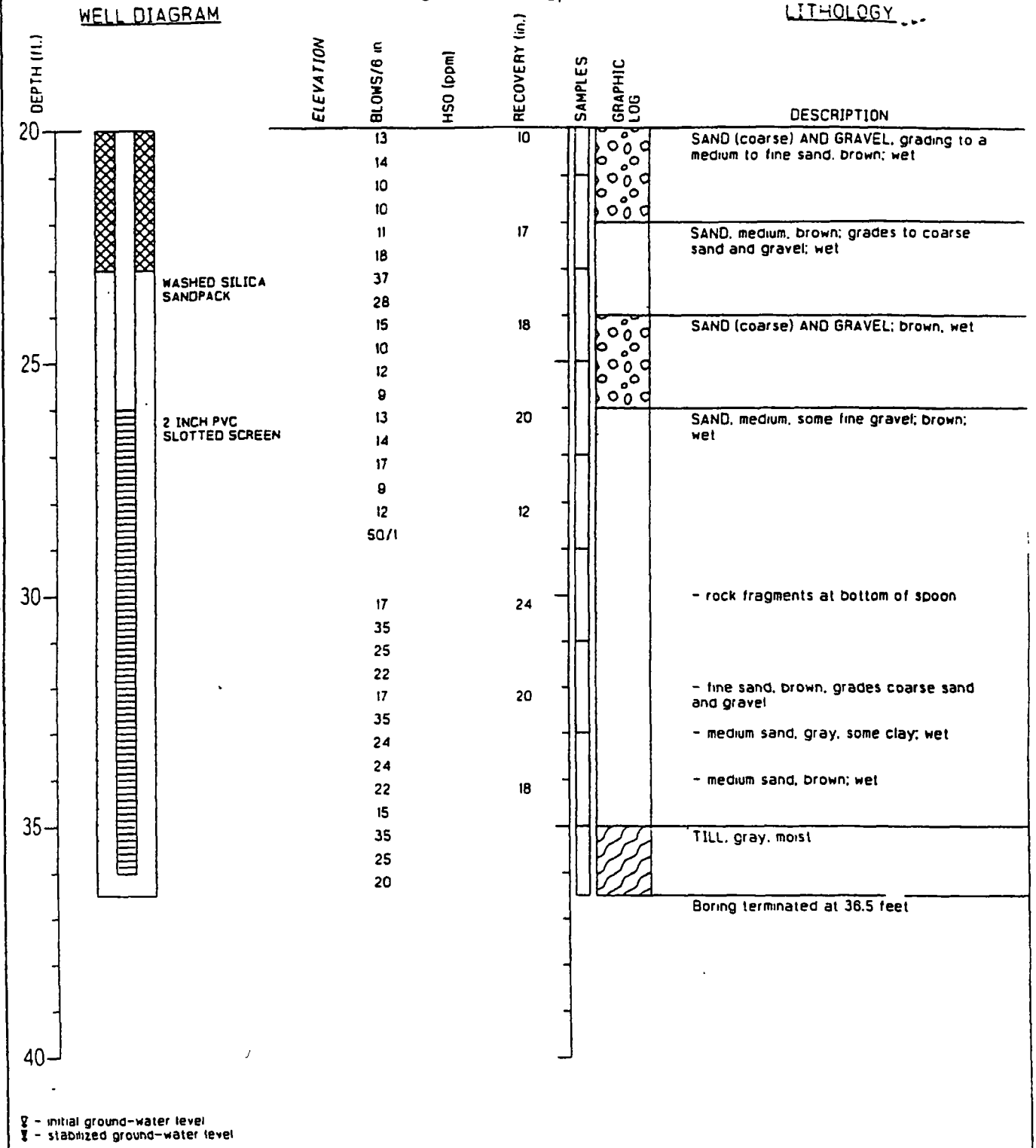
LOG OF BORING MW-210

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *36.5*
DATE STARTED: *02/08/99*
DATE FINISHED: *02/08/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

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Environmental Consultants
Cincinnati, Ohio

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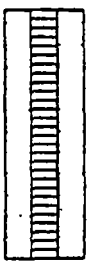
LOG OF BORING P-211

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



LITHOLOGY

DEPTH (ft)	ELEVATION	BLOWS/6 in	HSO (ppm)	RECOVERY (in)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		18					SILT, trace of clay and fine gravel, light gray; moist
		28					
		24					
		40					
		18					SAND, fine, trace of silt and clay, light gray; wet (TILL)
		50/5					
							Boring terminated at 24.0 feet
25							
30							
35							
40							

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *24.0*
DATE STARTED: *02/12/99*
DATE FINISHED: *02/12/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

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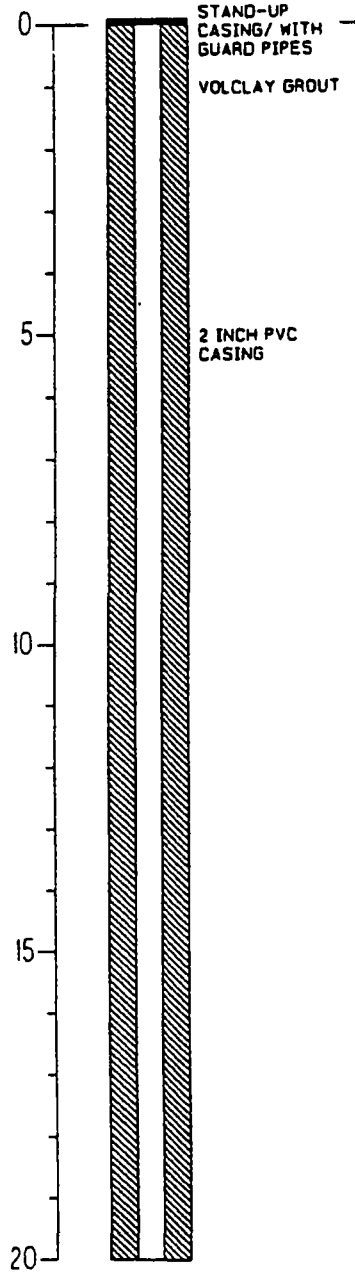
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-212

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



ELEVATION	BLOWS/6 in	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
						FILL MATERIAL
	16		18			– silt and sand (fine), rock and wood fragments; black, moist
	7					
	11					
	10					
	11		5			– black silt and brown fine sand; very moist
	9					
	4					
	1					
	1/24		10			– foundary sand, black; very moist
	50/5		12			– red brick fragments; very moist
	11		4			– asphalt, wood fragments and red brick, moist
	10					
	7					
	6					
	16		9			– medium sand, gravel and wood fragments, black, wet
	12					
	6					
	7					

▽ – initial ground-water level
▼ – stabilized ground-water level

TOTAL DEPTH (Ft.): *58.0*
DATE STARTED: *02/06/99*
DATE FINISHED: *02/06/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

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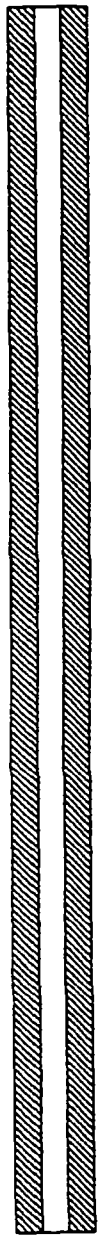
Environmental Consultants
Cincinnati, Ohio

000040

LOG OF BORING MW-212

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
20		16		5			- medium sand and coarse gravel, cobbles and wood fragments, black; wet
		12					
		6					
		7					
		36		20			- coarse sand and gravel, foundary sand and wood fragments, wet
		50/5					- white/gray; chalk/paste; moist
							- coarse sand; some gravel; black wet
		19		24			
25		13					
		19					
		22					
		8		24			- white/gray chalk; moist
		13					
		14					
		24					
		8		24			- wet
		9					
		7					
30		8					
		19					
		24					
		38					
		12		18			TILL, moist
		25					
		26					
		31					
35		18		20			
		22					
		25					
40		30					

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *58.0*
DATE STARTED: *02/06/99*
DATE FINISHED: *02/06/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO. *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

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000041

LOG OF BORING MW-212

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
40		8		18			
		22					
		28					
		28					
		11		4			– wet
		34					
		50/4					
		2		17			– fine sand; light gray; wet
		2					
45		4					
		7					
		13		23			– sand; coarse grades fine; light gray; wet
		22					
		21					
		21					
		12		24			
		40					
		50/4					
50		27					
		50/5					
							No sample
		50		24			TILL, moist
		50/4					
55							
60							Boring terminated at 58.0 feet

BENTONITE PELLETS

WASHED SILICA SANDPACK

2 INCH PVC SLOTTED SCREEN

▽ – initial ground-water level
▼ – stabilized ground-water level

TOTAL DEPTH (Ft.): *58.0*
DATE STARTED: *02/06/99*
DATE FINISHED: *02/06/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

The Payne Firm, Inc.
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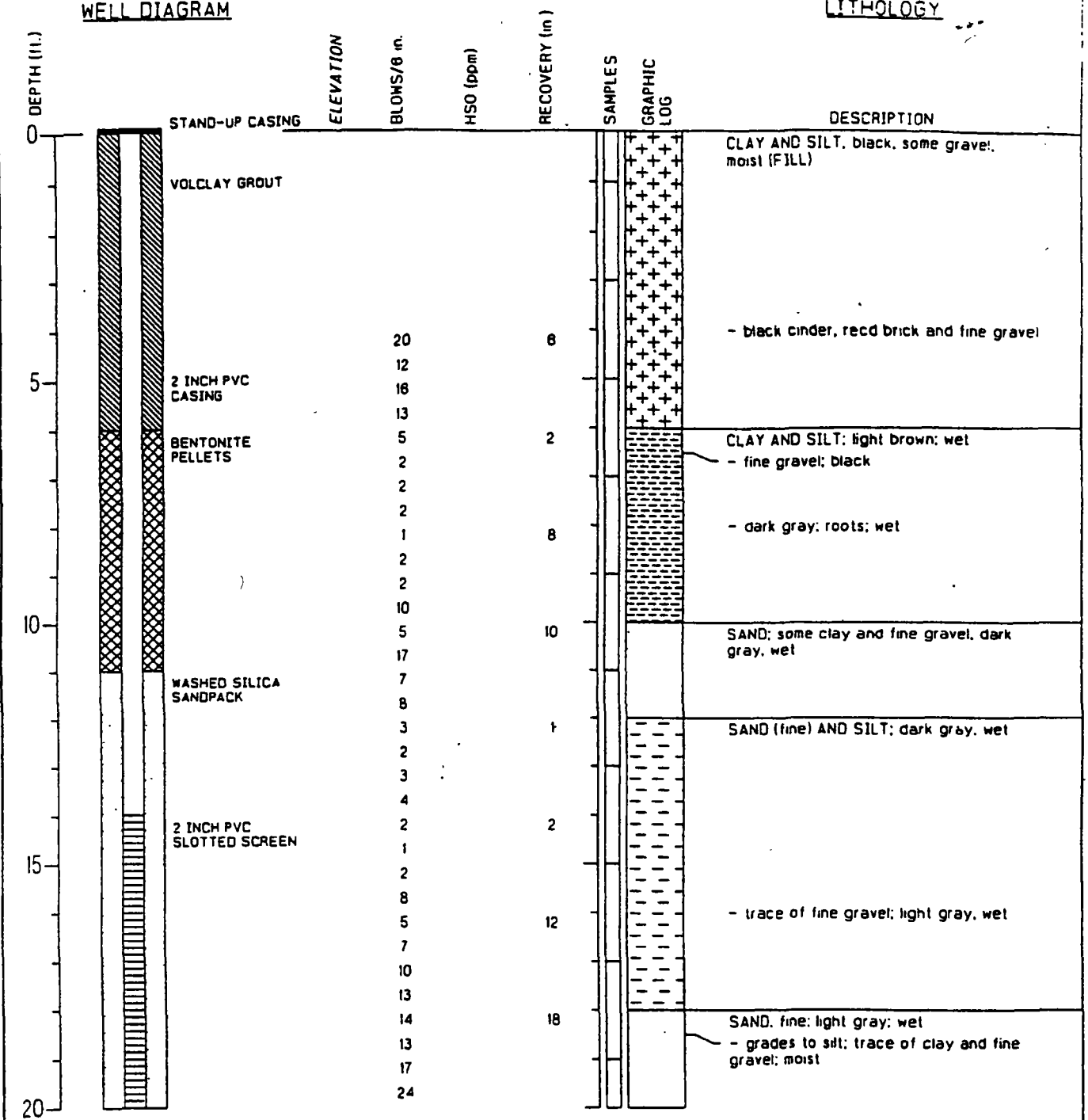
Cincinnati, Ohio

LOG OF BORING P-211

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio



▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *24.0*
DATE STARTED: *02/12/99*
DATE FINISHED: *02/12/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

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Cincinnati, Ohio